UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

PUBLIC MEETING ON THE

TOXICS RELEASE INVENTORY

REPORTING FORM

November 13, 1997

Washington, D.C.

Proceedings By:

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Paul Orum
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Jeff Thomas
Rex Tingle
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P R O C E E D I N G S (1:00 p.m.)

MS. HAZEN: Why don't we get started. Welcome to the basement of the east tower of EPA, one of our more luxurious public meeting rooms. Unfortunately I would have to say that we were actually lucky to be able to get this space. Usually, it's even more cramped than this. There are, for those who may need it, there are washrooms and things down at the end of the hall, phones, those types of things.

My name is Susan Hazen. I'm the Director of the Environmental Assistance Division at EPA. This is the division within EPA that runs the Toxics Release Inventory Program as well as a number of other programs in the office. There's also community based environmental protection, the 3350 Program, the Congressional liaison activities and all of our outreach and legislative activities.

This public meeting is the first in a series of these meetings to obtain comments from various stakeholders involved in TRI on how we can do a better job of communicating information which we collect in the TRI, how we can maybe do a better job or a different job of actually collecting the information itself, a close look at the form on which the information is reported as well as any comments, advice, guidance, suggestions, whatever on really how to make the TRI data more useful to the public as we report it out to them.

This initiative started, well it actually started a number of years ago as the TRI began to change over time, but more recently it's become clear that with the addition of 286 new chemicals to TRI, the addition of new sectors to TRI, we're looking at a number of other modifications including lowering the threshold for certain chemicals and things like that. It's become clear that it really is time for the agency to take a close look at the information, how we collect it, how the public is using it and really try and refine what we do so we

streamline what we send out and hopefully streamline the process for people who are required to report to us.

The President or the Vice President announced this series of stakeholder meetings when he announced the addition of the seven sectors. We would like to be able to move along rapidly to make changes if we can. Some of them may be things we can do just by changes in our policies. Other suggestions may require rulemaking, but all of these things really are on the table and we're more than willing to look at it.

We also, in conjunction with the public meetings we're holding, we also have a NACEPT group. That is a group that is looking at these very same issues and providing constructive comments back to the agency. That group has met already and actually a number of the members of that group are here today.

So with that, I would like to introduce the folks here who are at the table, Maria Doa who is the Branch Chief for the Toxics Release Inventory Branch, and Michelle Price who works in that branch and is also shepherding the NACEPT process as well as this, and Fern Feil who is our facilitator for this meeting. We're going to have a series of presentations, folks who have signed up to make presentations. Hopefully we will have opportunities for comments or questions. If time permits and people haven't signed up, we will also try and accommodate any additional speakers who may come in.

The meeting is actually scheduled to go from 1:00 to 4:00, so hopefully we will have enough time to hear from everyone we need to. With that, I think I will turn it over to Michelle.

MS. PRICE: Great. Thanks. I'm glad to see everybody here today. We look forward to hearing your comments. I just want to take a few moments to give you a little bit of logistical information about the other meetings we're having. We have this meeting today and we have a meeting next week in San Francisco and another one in Chicago where we're doing the same thing we're doing here, taking public comment on these issues.

We're going to be doing a Federal Register notice later this year to announce several more meetings. We're talking about six more meetings, public meetings in different parts of the country and we will post that Federal Register notice up on our home page. You can call me if you want further information, but I wanted everyone to know that we put a new part of our home page up on the TRI stakeholder dialogue, which is what we're calling this process overall. One part of that site is entitled TRI public meetings and will identify the places and times and stuff for having these additional meetings when those are available. The other part of that site has information on the Toxics Data Reporting Committee, which is the NACEPT Committee that's usually referred to. So we do things like post the agenda and issue papers and once meeting summaries are available from those meetings, we will have that information posted as well.

For those of you who don't have the address to the home page, it's htpp://www.epa.gov/opptintr/tri. If you just look under the heading TRI stakeholder dialogue. I will write that up over here so you guys can write it down and during the course of the meeting you can use that. So I would check for the most current updates. If you can't get a hold of me for some reason, feel free to check the home page and you should be able to get information.

I also wanted to take a few minutes to go over the issue paper that many of you have already probably had a chance to look over. That's been posted up on our Internet site as well. This issue paper just outlines some things that have been brought to our attention, and we wanted to kind of stimulate discussion. That doesn't mean it's limited, your

comments don't have to be limited to those topics, but we wanted to put this out so you would get a sense of what we were looking for.

The first issue in that issue paper is about the definition, or EPA's interpretation of the definition of release, particularly with respect to class I underground injection wells and RCRA Subtitle C landfills. Many of you probably know that people have commented to us over the years that EPA's interpretation of the definition of release may lead to a misperception that a reported EPCRA 313 release actually results in exposure to people in the environment. What we're looking for there is any suggestions on ways that we can collect and disseminate the data that are consistent with that interpretation, our interpretation of release, and would also address concerns raised with regard to public misperception.

The second issue that was described in that issue paper was about section 6 of the Form R, which discussed publicly owned treatment works and how that information is reported. We've had some people bring to our attention that the way information is reported there makes people believe that the chemicals sent to a POTW is treated or destroyed, and that as a consequence none of that chemical reaches the environment. Other folks believe that chemicals are only treated to a small degree when they're sent to a POTW and that the remainder of the chemical is actually released to the environment. So what we're looking for here is we've outlined several ideas for addressing this issue and would welcome any comments on these or any other options that people could give us that would make the information on off site transfers more useful yet still maintain that distinction between off site treatment and off site releases.

The final issue that we outlined in this issue paper has to do with section 8 of the Form R and, as you probably know, section 8 collects information on waste managed at a facility, whether or not the waste was generated at the reporting facility. Some folks are concerned about public misperception of the data in section 8 because of the focus on the amount of waste managed, not waste generated. What we would really like to see is some comments on ways to change sections of the Form R which would continue to allow the user to assess waste managed by the facility, but would minimize the perception that the wastes reported in section 8 were generated by the reporting facility.

So those were the three issues that we outlined in this issue paper. Again, I want to emphasize that that's not what we're limited to, but in the context, and also in the context of the TRI program and its current reporting forms and reporting practices, we're interested in hearing any comments on ways to improve the type of right-to-know information available to communities and to help streamline right-to-know reporting requirements to ease the paperwork for businesses. So those are sort of the main things we're looking for here. That's why we put these issues together in this issue paper.

So unless there are any other questions, we would like to get started to hear from you. Fern will take it from here unless there are any questions on the issue paper.

MS. HAZEN: Can I just add one thing to that? Sometimes at these meetings folks would like to use them for the opportunity to raise interpretive guidance questions. We specifically do not try and answer interpretive guidance questions at these meetings. It is always helpful to be able to go back, see what we have said in previous correspondence, previous discussions. So if there are issues which are really ones of interpretive guidance, we're happy to take the question and we will get back to you on it, but we have found that in a public forum there is often the opportunity for confusion and miscommunication. So if there are interpretative guidance questions, we're happy to take them and we will do our best to respond to them, but we do want to go back and see what may have been said in earlier correspondence, earlier

guidance packages. That's as much as a help to you to get correct information as it is to us not creating confusion.

MS. PRICE: There are a few more seats up here if anybody wants to come forward and take them. I think there are two right here. I think we've pilfered all the chairs in the basement. I'm not sure you will find any more if you check the rooms.

MS. FEIL: My name is Fern Feil. I'm going to facilitate this. What we have here is a list of approximately 20 speakers who have signed up to speak. We have a little less than three hours. We've got about seven minutes a speaker. If there's anybody who didn't sign up and has something they want to say, if there's time at the end we will open it up for whoever is left.

So I'm just going to start with the first person on our list here. What I would like to ask also is that when you stand up to speak, please say who you are and where you're from so everybody knows who they're listening to. Did you have a question, Paul?

MR. ORUM: Are you going to be taking questions for speakers?

MS. FEIL: For each speaker at the end we will, yes. Again, we need to stay in approximately the seven minute time frame for questions and what the speakers have to say in order to make sure everybody has a chance to speak.

MR. CHELEN: Could you quickly read the order of the speakers?

MS. FEIL: Sure. As it stands right now, we have David Case, John Chelen, Holly Evans, Rick Hind, Allison LaPlante, Rick Lattimer, Wesley McNealy, David Mentall, Thomas Natan, Paul Orum, Steve Pattison, Rich Puchalsky, Alan Septoff, Ellen Shapiro, Ben Smith, Jeff Thomas, Rex Tingle, Jackie Savitz and Kevin Bromberg.

So the first person is David Case. Come on up.

MR. CASE: I just said to my friend, I hope I'm not the first one. My name is David Case and I am the Executive Director of the Environmental Technology Council. We represent a fairly large group of companies that are commercial hazardous waste treatment and disposal companies. So it's an industry that is newly brought into the TRI reporting scheme. Most of my member companies are very much involved right now in trying to figure out how they're going to revise their computer data collection information systems, to do the reporting that will be required.

I want to focus on just one very narrow issue, which is one that Michelle identified as an issue for the briefing paper, and that is reporting by RCRA Subtitle C Landfills. The Form R has been revised, and if no one has complimented you yet on the revisions let me do that. This makes somewhat more sense.

MS. HAZEN: It's the first, thank you.

MR. CASE: Actually we like the changes that were made to the 1996 form which make a little clearer that disposal in landfills is defined as the quantity of chemical entering an environmental medium, in this case it would be the land, and singling out or identifying separately RCRA Subtitle C landfills from other forms of disposal.

We continue to believe that placing chemical wastes in a subtitle C landfill does not meet the statutory definition of a release, but I'm going to save that for another day, perhaps not having to raise it again if we can work this out in the reporting form. We have a very specific problem and a very, I think, simple solution which I will put on the table and see what you think.

The basic problem is a RCRA Subtitle C landfill is somewhat unique compared to the other facilities identified here in that it has to be by law designed, constructed and operated to prevent releases to the environment. That's the whole point of the Subtitle C

landfill. If the waste is placed in a landfill cell with double liners and leachate collection systems and leak detection systems and ground water monitoring systems, all of that to prevent releases, it is painful to then have to report that disposal as a release to the environment. So one of the things we're concerned about is simply public misperception that that kind of secure long-term disposal is actually a release into the environment.

A related concern when you read the instructions for filling out the Form R, as you know, it then says if the landfill has an actual release, you don't have to report that because the volume of toxic chemicals placed in the landfill has already been accounted for. So it seems to me the very information that a community would want to know, how much chemical actually is released into the land or the groundwater, the environment, is not revealed by this reporting approach.

So we would like to solve both problems in a fairly simple way. On the report, in the column that is 5.5.1A RCRA Subtitle C landfills, if we could divide that data item into, first of all the amount of the chemical placed in the landfill, and then, secondly the amount of the chemical released from the landfill, that would distinguish, that would first of all provide more accurate information to the public and it would distinguish between the amount disposed and the amount released.

Now, a subtitle C landfill again is somewhat unique compared to other facilities in that we have sufficient monitoring of any potential releases from the landfill that we feel we can estimate the amount of the chemical that actually then is released. Let's say, for example, that over time the liner system in the landfill develops a breach or a tear or a leak and that is detected by the leak detection system and by the groundwater monitoring system. We can then from that monitoring data and from the information we have on the volume and location of waste disposed make a reasonable estimate of the amount of the chemical that actually was released from the landfill into the environment. We could include that information on the form.

I think it would be useful for the community to know that X thousands of pounds or tons even of a chemical is placed in the landfill and X number of pounds is then released. It might be zero, or it might be a different number depending on the landfill. I like that kind of incentive. Obviously, it creates an incentive for the landfill operators to operate even more safely and try to avoid any releases so that they can show on their forms that the amount released is zero or very small.

That would be just a small data collection change on the form and hopefully not to some extent an additional burden on the operators, but one they would welcome because it would provide more accurate information for the public. Thank you.

MS. HAZEN: Thank you. Are there any questions?

MR. ORUM: What would you call these two amounts, amounts placed and amounts released?

MR. CASE: Exactly that. That's logical to me. Do you have another idea?

MR. ORUM: No.

MR. CASE: That's just the idea to try to distinguish the amount of the chemical that is placed in the landfill, that is placed in the land medium if you want to call the landfill that, and then the amount that's actually released into the environment would be separately documented.

MR. EMERSON: Would you mind using different terminology? Amount entering a landfill, amount leaving the landfill and the amount leaving the landfill be

divided by air, water and by the medium?

MR. CASE: The monitoring systems are certainly going to be more useful to us for estimating the amount leaving the landfill into the land, into the groundwater, the land. I will check with my members about whether we have a way of estimating releases to the air. As you also know, when the waste is placed in the landfill, it's usually containerized or it's stabilized material and then it's covered immediately. So hopefully there wouldn't be fugitive air emissions, or at least not high releases, but we will see if there's a way to estimate that.

MS. HAZEN: Thank you.

MS. FEIL: Thank you very much. John Chelen.

MR. CHELEN: Thanks for the opportunity to be here. I think I would like to start off by urging industry to really support an expanded TRI. To the people that we think we represent through RTKNET, that's the small, medium size user of toxic chemicals, TRI is really a mirror for industry to view itself. It really should be seen as an opportunity for industry to extend itself towards anti-command and control regulation. If you can support TRI becoming a universal reporting program as finely tuned as possible, I think it's in your interest in the long-term.

Trying to work through the details of under cutting this fine tool I think does us all a tremendous disservice. I think at the heart of this is a tremendous misperception potentially about the use of the TRI that's being advocated. In the recent TRI conference, there were a large number of so-called worker bees who use the TRI to a very good effect. None of those instances, I think, have been attacked by anybody under any framework of a misperception or misuse of this information.

Industry also had an opportunity to highlight if these problems occurred, and having reviewed the proceedings and the minutes of any of those sessions, we can't find any documented solid evidence that the work of the people who are using TRI day in and day out is leading to any misperception.

Now, there's obviously a concern in mass media use of this data, however, if this is a real problem, perhaps EPA should look at this from both sides, not only how the media are using this, but perhaps the antidote to how industry and others use this in commercial advertising as well. There are shadings that go on there as well, but I'm not sure that we want to call into question how any of that is occurring in the media. Let's have hands-off on mass media use of this interpretation of the data, concentrate on how this is being used substantively by the worker bees who are out there.

I would like to talk very preliminarily about the issue paper. Overall, none of us can do other than support greater clarity of the definitions of the data. I think all of us who work with EPA, with industry, with environmental advocates, whoever, to provide additional details and subcategories, as long as we do it within the framework of release as defined under EPCRA, no questions should be asked by anybody.

I think overall too we're ready to support rationalization of the reporting mechanisms and schemes between reporting and allocation of releases among and between different respondents. If there's any way to facilitate clean tracking between POTWs and others or any other entities, we should support that immediately.

I think finally, if we're going to look at clarification of the release definitions, we cannot overlook one of the most primary ways of release and that's product borne releases. It is something that is immediately amenable to change on this form with very little effort by EPA or very clean definitions that have been proposed in the NACEPT and

other committee meetings and falls under the current legal framework as well.

Putting that aside, I think from my perspective as somebody who looks at public access and release information, I would like to make a couple of points from our perspectives that will make a difference here. First, the TRI programs should be one of the leaders of program offices in the forefront of full scale commitment to integration of data held by the agency. TRI and all the other program offices will have their data much more useful if they're integrated across the board with the other program offices.

While ENVIROFAX has made tremendous progress here, it is still very limited. Many databases are not available and they're certainly not integrated with TRI and other databases. Secondly, there needs to be an information backbone to tie all of this together. The TRI program is perhaps the best positioned program to provide that. If we can marry the key ID initiative with revision of these forms, we can in one easy stroke reduce reporting burden on the TRI program and extend that to the reduction of reporting burdens to the other programs as well.

Third, we need to have the TRI program take the lead in linking with data from other federal agencies. OSHA, DOE, Agriculture and of course health information should be linked as fast as possible.

Now specifically with the forms, we would support additional details in the type of facilities that are reporting with an expanded SIC code definition. We would like to also see the reporting delay shorten significantly so that the data are released much faster than they are. It will be more useful for everybody and we really want to improve public access and interpretation of this data. Hotter data will be used by people in a more professional manner.

I think next we have to look at the enforcement record of EPA to make sure that everybody is in fact reporting accurately and adequately. It is not fair if an industry, if a facility, if a company is reporting on time, the way they should and other respondents are not reporting properly. It's EPA's mandate to do this and I think we should all urge them to do a better job there.

I think finally, if we really are concerned about the use of this data, EPA must get behind an expanded technical support and extended research effort to provide additional assistance to the people who are out there trying to use this data. More work can be done by EPA to set templates and establish a framework for the interpretation of this information and extend the use of those tools and intermediate measures to other parties.

Thanks again for the opportunity to be here, and I will file written comments.

MS. FEIL: Okay, questions, but before you ask your question, can you please say who you are and where you're from.

MR. MALCOLM: I'm James Malcolm from the small business ombudsmen office. I didn't catch for whom you were speaking.

MR. CHELEN: I'm sorry. I'm John Chelen from UNISON Institute.

MS. FEIL: Can you spell your last name, Sir?

MR. CHELEN: C H E L E N.

MS. FEIL: Any other questions?

MR. DARLING: Steve Darling from the National Paint and Coatings Association (NPCA). You mentioned how is the data used by worker bees to benefit industry, can you elaborate on that?

MR. CHELEN: Sure. I will refer you to the results coming out of the

recent TRI Right-To-Know Conference where there are examples of many local groups working hand in hand with industry forging good neighbor agreements, working on emergency response plans, working on a whole set of tools to involve the community with local industry. These are the people who are committed on a local basis day in and day out to dealing with these issues. I think these are the people we should charge EPA and ourselves to work with.

MS. FEIL: Okay. No other questions? Thank you. The next person is Holly Evans. Just so you all know, we have an overhead projector available if anybody needs it for their presentation.

MS. EVANS: If it's okay, I'm going to read my statement. My name is Holly Evans. I'm the Director of Environmental and Safety Programs for the IPC. The IPC is the Institute for Interconnecting and Packaging Electronic Circuits. Our members manufacture circuit boards. Here's a cell phone, two boards for a cell phone. Here are three boards for a laser detector and a board for a dashboard, items that are found in every day products. Our members manufacture the boards as well as put components on the boards.

The IPC has more than 2,300 members, the majority of which meet the Small Business Administration's small business criteria. I'm happy to see a representative from the small business ombudsmen's office here today.

In order to reduce the reporting burden imposed on TRI on small business members, we recommend one change. We recommend that the EPA exclude the amount of chemicals that are recycled or reclaimed from TRI's annual reporting amount for Form A eligibility purposes.

That change would achieve three notable goals. First, it would reduce the TRI reporting burden on small facilities by increasing their eligibility for simplified Form A. Second, it would create a positive incentive for facilities to recycle or reclaim their manufacturing byproducts. Third, it would achieve TRI's public right to know objectives. I will now elaborate on these goals in more detail.

First, excluding recycling and reclamation activities from TRI's annual reporting amount would make small businesses eligible for Form A, reducing their reporting burdens and saving them time and money. For IPC members, TRI reporting requirements are triggered mainly due to the listing of copper compounds. Copper provides the essential circuitry that makes printed circuit boards and electronic components operate. To manufacture circuit boards, copper clad epoxy laminate, which is the green material here, is selectively etched to form a circuit pattern. The laminate is then drilled and the holes and circuit pattern are copper plated to meet industry's specifications. As more circuit boards are manufactured, more copper is processed.

Due to the ubiquitous presence of copper in the circuit board industry, even the smallest PWB manufacturer easily exceeds TRI's 2,500 pound process threshold. Once triggered, TRI's reporting requirements are extremely onerous for IPC's small business members. IPC members spend on average between 40 and 50 hours complying with TRI reporting requirements, the equivalent of a full work week for facilities that often lack a full-time environmental staffer. IPC members that lack the expertise or resources to properly comply with Form R often hire expensive consultants in order to achieve compliance.

Currently Form A is not an option for the majority of IPC members because facilities must have a total annual reportable amount of less than 500 pounds per listed chemical to be eligible. The major byproducts of PWB manufacturing include sludges, etchings and circuit board scrap, all of which are highly recyclable. For the average circuit

board shop, these materials contain total amounts of copper that are greater than 500 pounds.

Excluding the amount of chemicals that are recycled or reclaimed from TRI's annual reporting quantity would qualify many IPC members for the simplified form A. Second, excluding recycling or reclamation activities from TRI's annual reportable amount represents a perfect opportunity to encourage PWB shops to recycle their sludges, etchings and scrap boards.

According to EPA's waste management hierarchy, recycling and reclamation are more desirable waste management activities than treatment and disposal options since recycling and reclamation salvage reusable constituents and reduce demand for virgin raw materials. Because the copper contained in PWB sludges, etchings and circuit board scrap is easily reclaimed, some IPC members recycle their spent etchings on site and others send these materials off site to reclamation facilities where the copper is 100 percent beneficially recycled for reuse.

However, some PWB shops send their sludges and etchings to hazardous waste landfills instead of reclamation facilities simply because the costs and regulatory burdens associated with landfilling are cheaper than those associated with recycling. Unfortunately, landfilling these materials essentially wastes their copper constituents. Excluding recycling and reclamation activities from TRI's annual reporting amount would encourage more facilities to recycle and reclaim their manufacturing byproducts since such activities may make them eligible for form A.

Third, excluding the amount of chemicals that are recycled or reclaimed from TRI annual reportable amounts would not jeopardize the public's right to know about toxic chemical releases. Recycling and reclamation should not count towards TRI's annual reporting amounts since that figure is designed to account for the amount of toxic chemicals that is discharged into the environment. In the case of copper recycling and reclamation, copper is not discharged into the environment. Rather, such activities prevent copper releases by reclaiming and reusing the metal. As a result, including such activities in the TRI databases confuses and misleads the public about the true level of environmental releases.

TRI must be structured in a way that balances burden reduction interests versus data preservation interests. Currently, the balance is skewed against industry reporters who must report on waste management activities that do not result in toxic chemical releases. Form A represents a much needed tool to restore that desired balance. However, its eligibility must be expanded both to reduce the reporting burden on industry, as well as the data collection burden on the agency.

If EPA finds that information regarding the volumes of TRI chemicals that are recycled and reclaimed is crucial to include in TRI, EPA could amend Form A to request basic information on the volumes of chemicals recycled on site or sent off site for reclamation. Since Form A is published in the TRI database, this fix could assure public stakeholders of the amount of materials that are being reclaimed and provide regulatory relief to facilities whose waste management activities do not result in toxic chemical releases.

In conclusion, I would like to stress that the electronic interconnection industry is committed to improving its environmental, health and safety performance. We are also committed to meaningful public right-to-know about reasonable environmental risks. Revising TRI to provide an incentive for companies to recycle and reclaim their manufacturing byproducts would achieve both of these goals. Excluding recycling and reclamation activities from TRI's total annual reporting amount would make more facilities eligible for the streamlined Form A. This promise of reduced reporting burden would entice more companies

to recycle their manufacturing byproducts which prevents chemical releases to the environment. Finally, such a change would preserve community right-to-know objectives since TRI information would still be collected on those facilities through Form A.

Thank you for providing me with this opportunity to submit comments.

MS. FEIL: Questions for Holly?

MR. KERCHNER: The copper, I just want to clarify something, the copper you send off site for recycling and reclaiming, that's not reported as a release.

MS. EVANS: It's reported I believe under the Section 6, which is off site transfers.

MR. KERCHNER: Okay, but not as a release.

MS. EVANS: Right, but they still have to fill out the five to seven page Form R for the chemical, which is a significant burden. We're not against doing the exercise. A lot of my small member companies they grumble about it, but to tell you the truth they would like to understand where the chemicals are going. So it helps them understand. We're just opposed to the seven page form, which really is burdensome for our members.

MR. NATAN: My name is Tom Natan from the National Environmental Trust. I think your members would be doing themselves a disservice first of all by not filling it out, if they had really had moved from off site transfers to disposal to on- or off-site recycling. That ought to be something that they would want to let people know about.

But I wanted to comment about it may be if your industry is mostly small business, but I recently completed a survey of TRI reporting facilities, including battery manufacturers and primary metals, some of whom if recycling was excluded would fall below that threshold and would report only Form A. We would be talking about hundreds of millions of pounds of [word lost] off site recycling of copper compounds and I believe -- I surveyed 80 facilities, among them, 30 would have dropped out and we would have lost over 60 percent of the on-site recycling numbers from the 1994 TRI. So I can't say my -- the environmental community and the people I work with would support this at all. If you really are a small business, then you wouldn't be reporting anyway.

MS. EVANS: We are small business. We meet SBA definition of small business. On average, our members have about 100 employees, which means it doesn't meet the EPA definition of small business, but it does meet the Small Business Administration's.

MR. ORUM: Paul Orum, Working Group on Community Right-to-Know. We have over 100 superfund sites related to hazardous waste recycling in the country and countless other contamination sites. Wouldn't this change you're proposing reduce the incentive for source reduction, which is now national policy under the Pollution Prevention Act, and which would serve to prevent that kind of contamination we have from recycling sites?

MS. EVANS: Well, for our industry, source reduction right now is not feasible because to prevent or reduce the amount of copper they use, they would not be able to achieve the industry specs, which a lot of them are governed by the U.S. government. So that alone is a problem. If we want to reduce the copper, we can't sell our boards. If you think about the boards, they're used in airplane crash avoidance system, you want to make sure these boards perform. Companies will reduce the copper, the boards may not perform as desired. So it's a real struggle for industry to achieve both of those goals.

MR. ORUM: Would you apply it then just to your industry or for all industries?

MS. EVANS: Apply what?

MR. ORUM: The exemption, the change you're talking about. After all, you're saying your industry basically does not have opportunities for source reduction.

MS. EVANS: I think Form A is a great revision. I think that Form A unfortunately isn't as widely used as it was once intended to do. I think that if EPA added another sentence on the Form A that said please include the amounts that you send off site for recycling or that you reclaim on site, I think that might make everybody happy because those numbers would then be reportable to the TRI database. It wouldn't be lost, they would still be reported. Companies would still be able to take advantage of the streamlined Form A.

MS. FEIL: Any more questions? Thanks, Holly. Rick Hind. Is Rick Hind here? No. Okay. Allison LaPlante. Allison, are you here?

MS. LAPLANTE: Yes. Thank you. I'm Allison LaPlante. I'm here with the U.S. Public Interest Research Group, U.S. PIRG. I'm actually standing in for Carolyn Hartmann, our Environmental Program Director.

U.S. PIRG is the national lobbying office for the state public interest research groups. We're a statewide, across the country non-profit, non-partisan environmental and consumer watchdog group. We've had a longstanding interest in right-to-know issues. We've worked with TRI extensively and have been working to expand and improve the communities' right-to-know about toxic emissions and use data.

I have a few comments I wanted to submit today in writing, but then I wanted to highlight two of the main points of the written comments. The first would be on source reduction reporting. In 1990, Congress passed the Pollution Prevention Act and declared it to be a national policy of the United States that pollution should be prevented or reduced at the source whenever feasible. Prior to 1990, nearly 20 years of environmental laws had sought to control pollution after it had already been created rather than preventing its creation in the first place. These pollution control technologies, including hazardous waste treatment, recycling, incineration and disposal, all of which come with risks of environmental contamination accidents and human exposure.

Certainly pollution control technologies are preferable to freely dumping toxics into the air, land and the water, but unfortunately they often result in shifting toxic hazards from one environmental medium to the other. With the passage of the Pollution Prevention Act, Congress has recognized the steps needed to be taken to address this historical lack of attention to pollution prevention.

In April of 1997, the U.S. EPA released the latest data from the 1995 calendar year that's collected under the Emergency Planning and Community Right-To-Know Act and the Pollution Prevention Act and found that although manufacturing industries across the country continue to make progress at reducing toxic emissions to the land, air and water, they are failing to prevent toxic pollution at the source.

EPA should then require facilities to report the total production related waste at a facility by adding sections 8.1 and 8.7 together. U.S. PIRG believes that this reporting is clearly required under section 6607(B)(1) of the Pollution Prevention Act, which states "the quantity of the chemical entering any waste stream or otherwise released into the environment prior to recycling, treatment or disposal."

EPA's annual reports on TRI data clearly document that the Pollution Prevention Act has for the most part failed to motivate industries to reduce the quantities of production related wastes that they generate. Furthermore, EPA's data shows that industries are projecting no improvement in reducing the quantities of waste they manage in the near

future.

Much of the waste that is managed at a facility often creates potential toxic hazards. As Paul had mentioned, these hazards range from accidental spills and leaks to daily worker exposure. In fact, there are, for example, hundreds of superfund sites across the country that have resulted from recycling hazardous wastes. So by requiring facilities to specify the total quantity of production waste, it will help shift the attention of facility managers, regulators and the public from reducing releases to reducing waste at the source.

In addition, the reporting form should be modified to enable facilities to distinguish wastes generated at the reporting facility from those generated elsewhere. This could be simply accomplished by adding a box to the Form R to record the amount of total production waste that is not generated at the facility. This will improve data presentation, help reveal source reduction and address any so-called double counting issues.

Several other reporting modifications that could help to encourage source reduction include requiring facilities to report actual quantities of waste prevented through source reduction, requiring facilities to identify chemical substitutions on Form R Section 8.10, if they report raw material substitution as a source reduction activity, and finalizing the regulations and guidance for reporting under the Pollution Prevention Act.

That I think is kind of the main points we wanted to highlight about source reduction. The second area that I wanted to touch on in the spoken testimony is on chemical use reporting.

We urge the EPA to complete the rulemaking and expand the right-to-know to include toxics use reporting. EPA issued an advanced notice of proposed rulemaking earlier this year and we're hopeful that the agency will move forward with this proposal early next year.

Specifically, we urge the EPA to require facilities to report a simple materials accounting of the chemicals they use, including the amount brought onto the site, use of, shipped off the site as waste or product. This information enables people to measure and thus promote pollution prevention. Specifically, chemical use data helps us to tell where chemicals go as waste or as product, identify low cost prevention opportunities, understand the life cycle of a chemical, establish baselines for planning, validate emissions data, improve public understanding, improve chemical management capacity, assess worker exposure, establish formal employee prevention programs and several other uses.

We have in the past provided more extensive testimony on chemical use data. We also encourage EPA to require facilities to report on how many workers are exposed to each TRI chemical above background levels.

That basically completes the sections that we wanted to highlight in the spoken testimony and the rest is in the written testimony.

MS. FEIL: Any questions for Allison?

MS. MOSES: Carolyn Moses from PEPCO. I didn't understand in the point you were making about reporting chemical substitution.

MS. LAPLANTE: I think that was just one suggestion in terms of other things that could be added to the reporting form in terms of encouraging source reduction. So if a company is putting into plan some source reduction, if you're using a substitution instead of using a more toxic chemical, then reporting on what that substitution is, it just gives a broader scope of what you're doing to encourage source reduction.

MS. SAVITZ: Can you give some examples of -- I'm sorry, I'm Jackie Savitz, Environmental Working Group. Can you give some examples of how chemical use

reporting has ever been used and whether it's been beneficial or whether it's been problematic?

MS. LAPLANTE: Definitely. The best examples of how chemical use data has been used is in the state laws in New Jersey and Massachusetts. We have reporting going on and it's been successful for the past number of years in many different ways. In Massachusetts, I believe we've seen a reduction of toxic wastes of I think 30 percent, in New Jersey 50 percent, I might be getting those two statistics -- the bottom line being that by causing industry to kind of look at the chemicals they're using, it's encouraging reducing the number of chemicals, streamlining the processes. Then I think also not to mention the environmental benefits, it's also enabled them to have extreme economic benefits for every dollar that these industries are spending complying with this use data reporting, they're saving between $5 and $8 in compliance costs and clean-up costs. It's a much more efficient process, not to mention that it's enabling citizens to use the data.

MR. PATTISON: [Off mike.] Ed [word lost with waste management]. In the last regulation, EPA expanded their reporting requirements to commerical hazardous waste treatment and deferred consideration of expansion from other pollution control activities, POTW and so on and other solid waste treatment disposal facilities. Could you give us a sense of how the emphasis on source reduction would be applied to pollution control facilities which are not responsible for what comes in the front door and what happens inside?

MS. LAPLANTE: I'm not sure I can answer that question. I kind of missed a little bit of what you said.

MR. PATTISON: The emphasis on source reduction, EPA is moving in the direction of expanding TRI for a lot of facilities that have no control over chemical use to begin with. I'm curious as to how that new expanded list of categories is supposed to fit into a scheme that focuses on source reductions where people who have control over the materials that are going to be used make decisions versus if you have a whole new slew of categories that have nothing to do with source reduction because they don't have decisions to make about it.

MS. LAPLANTE: I'm not sure if I'm probably the best person to answer that question. I'm not very familiar with those specific industries. Somebody else might be able to answer it better than I could.

MS. FEIL: Thank you. Rick Lattimer.

MS. PRICE: This is Michelle Price. I just wanted to mention one thing, those of you who are making statements, if you want to leave your copy of your written comments with me, that's fine. We've asked people to submit their written comments so we can put them in the docket. Thank you.

MR. LATTIMER: My name is Rick Lattimer. I'm a senior process engineer with Eli Lilly and Company, a pharmaceutical company out of Indianapolis, Indiana. I've been responsible for various aspects of TRI reporting at Lilly since the program's inception in 1987. This includes data collection and reporting at the facility level to providing training and consulting services for various personnel charged with the reporting process at all Lilly reporting facilities.

These specific comments are about potential TRI Form R streamlining opportunities to simplify the data collection form and ease the data collection burden, both from an agency and reporting facility perspective. These remarks will be expanded and submitted in greater detail in the near future. The purpose today is to present an outline of

these suggestions that have been explored to this point.

First, I support the concept of combining current sections 5, 6, 7, and 8 to streamline data reporting and reduce data redundancy. Please realize that no currently reported release or waste generation quantity are being proposed for deletion. Only the redundant fields and certain informational codes which offer little value in comparison to other information reported on the form and are not statutorily required would be candidates for removal.

The key to the reformatting of these sections is to separate them into four clearly distinguishable waste management activities. The sum of the individual sections and combinations of these sections would then be given definitions by the agency. The definitions would clarify the meaning of the values present in each of the sections, provide more consistent measures for pollution prevention purposes and minimize the possibilities of misuse of the data.

The general descriptions of the four new sections would be one, unmanaged releases at the facility, so almost like Section 5 is now, air, land, water. Two, on site and off site transfers to land based management units. The third one would be waste treatment information, on site, off site, including POTW. The fourth section would be recycling, energy recovery and pollution prevention information.

In addition, EPA would add definitions specifying data analysis procedures that the EPA database would calculate automatically so that the redundant sums of each section are not necessarily reported on individual forms. Any special data analysis rule, such as the metal reporting guidance, could be handled by the database calculations eliminating facility reporting errors. Two examples of this concept are one, the database would sum all the values in the first new section and report the total unmanaged releases at the facility. Two, the database would sum all the values from the four sections and subtract the total catastrophic/mediation waste to give a total of waste managed by the facility.

There are several benefits to reformatting the Form R in this manner. This includes the following. All reported data is non-duplicative. It keeps data facility specific, provides mechanisms for maintaining data consistency from previous years, allows better categorization of waste management activities, and lets the EPA database totally manage all the special definitions and complicated reporting guidance to eliminate reporting errors.

The second suggestion, reduce to the extent allowed under EPCRA, Section 7A, waste treatment methods and efficiencies. This could be pared down to collecting broad information on the treatment, recycling and energy recovery technologies and their efficiencies employed at the facility. I don't believe the detail currently collected on each individual waste treatment step in a multi-step waste treatment chain is required or needed. The burden quickly escalates when a chemical is used in multiple areas of a facility producing various products.

Routine process changes and constant turnover in a pilot plant environment requires that a detailed inventory of waste treatment operations is always maintained. Removal of the detail would greatly simplify the data collection reporting process.

Third, do not report secondary waste treatment efficiency at off site treatment facilities including POTWs. This concept inappropriately expands the scope of reporting for a facility to summarize treatment activities that the facility itself has no control over. If EPA develops a listing of standard treatment efficiencies for all chemicals at POTWs, then the best option is to simply make that estimate available for downstream pass-through analysis. EPA could even insert that information in their database to simplify the analysis.

It is redundant for individual forms to report standard treatment efficiencies. If EPA receives comments that the standard factor is not relevant for specific facility situations, then EPA could provide an optional field to enable the facility to report a different efficiency factor that is related to their specific POTW.

Fourth, reduce double counting involving inter-facility transfers by breaking apart waste treatment, recycling and energy recovery quantity information for waste generated within and outside the facility. This will give a better pollution prevention perspective of waste reduction trends for waste generated at the facility by providing a mechanism to subtract out wastes that are managed as a service for other facilities.

You will also eliminate double counting of waste generation by counting a waste stream only once when evaluating individual companies, regions or industry segments. Most importantly, it will clearly define the waste quantities that the facility is responsible for the generation of and has the opportunity to reduce. The list could be implemented in several ways. It may be as simple as reporting a value for waste received from off site sources for purposes of recycling, waste treatment or disposal.

Five, eliminate bases of estimates codes throughout the Form R. Often the reported value is a combination of many measurements. Each may be obtained in a different manner. This makes it difficult to decide on any one choice. I don't understand the significance of reporting this code and suggest that it be removed. I'm not aware of many uses for bases of estimate codes.

Six, EPA should consider a November 30 cut-off date for changes to the Form R instructions and guidance documents. This policy may provide the biggest burden reduction of any change that EPA could make. Many hidden hours are spent in reaction to late changes made in the reporting form or guidance documents. The agency has to spend extra money to communicate changes to the reporting community and the Date Information Branch has to work overtime revising their own database, software and with communication with TRI's software vendors.

Facility personnel must learn the changes and communicate throughout their organization. In some situations, previously collected data must be reanalyzed. Finally, data management systems at the facility must be changed to comply with the revised requirements. It invariably leads to an increased number of revised forms submitted with appropriate cost to both the facility and the agency.

I wish to thank the agency for making the effort to collect comments from the public concerning opportunities to improve the TRI data collection and reporting process. I look forward to working with the agency on implementing the selected changes and offer my experience with the data collection process from a facility perspective to the agency.

MS. FEIL: Thank you. Any questions?

MS. DOA: My name is Maria Doa. I'm with EPA. I have a question about what you suggested for five and six and then compared with the POTW the sort of finer detail on the five and six would be unmanaged versus managed. Given that, the material sent to the POTWs, the stream that's treated and that putting things in Section 8.7 generally for POTWs is not very accurate for many of the cases and there's no intent by the POTW to treat some things that might volatize -- they try to volatize it, is there another option that you would consider for Section 8 that would provide maybe additional information that is neither treatment or release, that would provide the user with a more accurate description of that?

MR. LATTIMER: I guess my impression is EPA water areas have

various factors that are available for standard treatment efficiencies. So I think that's an obvious place to start, but I don't think those factors need to be reported on individual forms. Those could be just available in the database for analysis. So in other words, if someone wants to do a pass-through, the information could be right in the database so the quantity of this chemical going to the POTW and then you can apply the standard treatment factors. So you would have a rough estimate of what actually gets treated versus what actually passes through in some manner.

MS. DOA: But for the chemicals that they just won't treat? I mean not even physical chemical properties, they can't treat it, but things that are very volatile that will go -- it's just a question I guess in general. Is there some alternative where you provide the more accurate information?

MR. LATTIMER: In other words, you're saying that the standard factors don't take into account some of the --

MS. DOA: No, I'm saying that in Section 8 we tend to report the ultimate disposition of the chemical. In reporting transfers to POTWs, Section 8 is sort of a matter of convenience more maybe than anything else for simplified reporting. I understand that without adding the burden of having let's say people use a list of chemicals with treatment efficiencies, I just wanted to know if there was maybe a different option, a third option that you could consider where they wouldn't have to do the calculations but would get at what's really going on?

MR. LATTIMER: I guess I don't understand what other options might be there, but I think anything that is already standard knowledge or EPA has estimates would certainly be applied. I may not know enough about the situation.

MS. HAZEN: Maybe we can follow up later. We know your number.

[Laughter.]

Telephone number.

MR. EMERSON: Dwight Emerson, Analytical Services. What would be your definition for managed release versus unmanaged release?

MR. LATTIMER: Well, essentially I would classify unmanaged would be direct emissions to the air, land that's not a containment unit or to the water. So almost everything in Section 5 except for Subtitle C and underground injection.

MR. EMERSON: So waste materials that went through a treatment process and then were permitted for release would not be considered managed releases?

MR. LATTIMER: Not under the definition of managed. I see what you're getting at where in a sense it's managed but it's still going out. I guess my unmanaged means there's no attempt to prevent it from actually entering the environment. I mean yes, it's treated in maybe 98 percent efficiency, but that remaining two percent I would still classify as unmanaged. Maybe unmanaged is the wrong term, but I think the general concept is -- an air release is an air release and it's out, it's gone out of your control.

MS. FEIL: Thank you. David Mentall. I skipped a person, I'm sorry, we will go back in a minute to Wesley McNealy. Sorry about that.

MR. MENTALL: Good afternoon. My name is David Mentall and I am the Staff Executive for the Chemical Manufacturers Association's Underground Injection Control Group. Members of CMA's UIC group strongly support open communication with the public on a regular basis. This principle, and a commitment to improve this dialogue with the community is an integral part of our six Responsible Care principles in management practices. We continually strive to improve the information we provide to the public to

ensure that it's both accurate in a relative context. Furthermore, we believe that the public has a right to know about the benefits and potential risks posed by the manufacture, distribution and disposal of chemicals and that communication about such benefits and risks is a principal goal of community right-to-know programs.

In support of these convictions, I am here this afternoon to comment on and provide suggestions to the collection and dissemination of environmental data that will alleviate some of the public's misperceptions regarding deep well injection. At present, both the TRI and Form R classify wastes injected into deep class I wells in a way that creates the misimpression that this waste management activity possesses an imminent threat to human health and the environment. Grouping class I injection with direct discharges to the air and surface water creates the misimpression that class I wells also discharge wastes directly into the human environment. As a result, many press reports inaccurately describe class I injection with terms like spewing, dumping, discharges to waterways and even public health crises.

The truth, as confirmed by several EPA analyses and reports, is that class I industrial deep well injection is a safe and effective waste management method that does not cause the release of toxic chemicals to the community or environment where human and environmental exposure is likely to occur. Accordingly, the TRI reporting schemes should be modified to reflect this reality.

EPA recognizes that reporting class I deep well injection as a release to the environment under the Toxic Release Inventory may create the potential for TRI data on class one injection to be mischaracterized or misunderstood, yet EPA has not been willing to reclassify class I in its TRI reporting program to eliminate the potential for public misperception. Instead, the agency has indicated it does not have the statutory authority based on the interpretation of release in the environment under EPCRA to address this problem.

Congress defined release as specified activities that facilities must report to EPA. Although EPCRA does not require that class I deep well injection be reported on the Form R, it does not compel EPA to call class I injection a release to the environment on the form or in its public releases of TRI data. Section 313 requires the reporting of the "annual quantity of toxic chemicals entering each environmental medium." This does not require that class I injection be called a release on Form R. EPCRA's requirements would be satisfied just as well by reporting class I injection as contained disposal.

In short, we do not believe that the interpretation of release to the environment under EPCRA is correct on reporting class I injection, but even under EPA's interpretation we believe that the agency has the ability to meet the challenges recently defined by EPA's Carol Browner at the TRI conference. EPA can carry out the task of "delivering more, better, increasingly useful environmental information to the American people." The interpretation still allows the agency to make the necessary changes to eliminate public misperceptions.

Therefore we offer the following nomenclature and format changes to Form R and suggest alternatives to EPA's public presentation of the data to correct the ongoing misperceptions of class I deep well injection. One, EPA should consider changing the terminology on Form R to eliminate the use of the term release as associated with class I injection. The public's understanding of reportable activities will be greatly enhanced by clearly communicating the types of activities, rather than EPA's current practice of lumping them altogether under the common term of release.

EPA should change the format of Form R to separate class one injec-

tion reporting from the reporting of direct discharges to air and surface water. The present format is confusing because the public is inclined to assume that activities listed together under the same section of the form possess similar kinds of exposure pathways. We recommend that EPA move class I injection into a separate section, perhaps together with similar kinds of disposal practices.

For Pollution Prevention Act purposes, EPA should exclude those kinds of activities that EPA determines do not result in direct releases to the environment from the total reported as quantity released. This will provide improved right-to-know information on the waste management practices at TRI reporting facilities.

Four, in conjunction with any public release of TRI data, EPA should explain the determinations that state and federal agencies have made regarding the safety and effectiveness of class I injections removing waste from the human environment and isolating them deep below the earth's surface. EPA should help the public understand that the likelihood of any direct discharges of these wastes in the air and surface water is negligible.

In conclusion, we believe that suggested changes could clarify the misperceptions perpetuated under the current Form R nomenclature and public data release. We support the agency's efforts to more clearly communicate the benefits and potential risks posed by the manufacture and disposal of chemicals. We look forward to working with the agency in the future on these issues.

MR. FEIL: Thank you. Any questions? Okay, thank you. Wesley McNealy.

MR. MCNEALY: Good afternoon. My name is Wes McNealy and I'm a chemical engineer with Potomac Electric Power Company, your local energy provider here in the Washington, D.C. area. The lights are on, so I must be having a good day. We're going to keep it that way.

My responsibilities include coordination of TRI issues for the generation business unit in PEPCO, and I'm also a member of the Edison Electric Institute Emergency Planning and Community Right-to-Know Subcommittee. I'm no stranger to the world of TRI reporting. Earlier in my career, I helped implement TRI compliance activities for the DuPont Company.

Today I'm speaking on behalf of the Edison Electric Institute or EEI. EEI is the trade association of shareholder owned electric companies, international affiliates and industrial associates. EEI member companies provide more than three-quarters of the electricity generated by electric utilities in the U.S. Its members were brought into the TRI reporting system earlier this year and will file initial reports in July of 1999.

EEI has long been concerned that the TRI reporting system fails to address the potential health risk associated with the release data being reported. We believe that the Form R should be modified to provide more relevant information on the releases. The total values currently reported in section 5 of the form leave unanswered a critical question. As a local neighbor to this plant, do I need to be concerned about these numbers? What does it mean to the health and safety of my family?

Neither the current From R nor the annual toxic release inventory answer this question. Possibly, EPA has decided that members of the public are able to translate the total release numbers into risk estimates. Based on our industry experience, the public may not be prepared to make such risk based conclusions.

In failing to provide the public with any information on the health impact of these reported releases, EPA has done only half the job of informing the public.

Ideally, section 5 should include the data on releases to each medium along with the risk to human health associated with each release.

We recognize that there are practical problems with this approach. First, a large burden would be placed on the individual 313 reporters to prepare detailed risk assessments on each and every Form R chemical that is reported. Secondly, this could involve squeezing a whole lot of information onto one little form.

EEI would like to suggest an alternative approach. We believe that this approach would give the public greater information about the reported releases, and would be easy to implement. EEI recommends that section 5 be modified to identify whether the reported release has been previously considered by the EPA and allowed by EPA rules and regulations.

Many of the releases reported in section 5 have been subject to extensive notice and comment rulemaking. During the development of and comment on these rules, EPA has considered the possible health effects associated with the release of the chemical into the environment. Where EPA has decided to allow certain releases at certain levels, it has concluded that those releases do not pose a significant hazard to human health. The public should be more clearly informed of these earlier decisions made by qualified professionals within EPA.

There are several ways that this new information could be incorporated into section 5 of the form. One approach would be to have two columns under total releases, one to account for federally allowed releases and the second to account for those releases that have not been subject to federal rulemakings. This would help identify the releases that are allowed by the EPA or by the state when the state is acting under a federally delegated program. A second simple approach to revising section 5 would be to leave the total release column unchanged but to add a box that could simply be checked if the release was also federally allowed. Changes to section 5 should be reflected also in section 8.1.

Either of the simple changes to section 5 would provide the public with additional relevant information on the releases being reported and would do so in a way that does not make a value judgment on the release. It simply identifies that the release was previously studied by the EPA and acknowledges that the public had an opportunity to participate in the earlier process.

We believe that this upgrade to Form R will benefit both the reporting facility and the neighboring community and we will be happy to provide additional information to the agency and work together toward development of revisions in the form. Thank you very much for the opportunity to speak. If you have any questions, I will try to take them.

MS. HAZEN: Susan Hazen from EPA. In terms of looking at the releases, I assume you're talking about permitted releases versus unpermitted releases, or releases that aren't subject to permits at this point.

MR. MCNEALY: Releases that have been studied by the EPA.

MS. HAZEN: Are you talking about indicating whether a facility's releases are in compliance with national standards, or whether each and every facility and their releases has been studied relative to the community? So in essence, you would do individual site-specific risk assessment at every facility for every chemical.

MR. MCNEALY: We're looking specifically at releases that have been studied under, for example, the Clean Air Act, major statutes. Releases of certain acid aerosols have been studied and either a criteria or limit has been set or it has been determined that a limit does not need to be set at this point in time.

MS. HAZEN: And how would you then address the issue of the cumulative effects of all the facilities within a community? I understand what you're saying. One of the things that would concern me was if you indicated this facility is okay, this facility is okay, but the aggregate then, would you not think that the community may walk away with a misperception that everything was just absolutely fine and not really look at the aggregate releases that may impact them?

MR. MCNEALY: I can't speak to the exact technical details, but for example with the Clean Air Act, there have been extensive studies of combustion byproducts, be they smokestack emissions or ash emissions and some of this cumulative effect should have been incorporated into some of those studies. We've done some extensive partner(?) work studies with the EPA. To answer your question, I think we can speak to a number of those cumulative effects through the studies that are already in place.

MS. MOSES: A prime example of that is NO_x controls and ground ozone where you're studying it on a regional basis.

MS. DOA: Would you distinguish between -- some of the federal statutes aren't just based on risk or hazards, there are other economic considerations -- would you consider maybe limiting it, excluding things where there are other considerations?

MR. MCNEALY: I think we would look at different options. What we're looking at is another layer of information to lay against the number.

MS. SAVITZ: [Off mike.] I think it's a big leap to suggest that a [inaudible]. The example of acid aerosols is a very good one [inaudible]. Whether you agree with the numbers of premature mortality or not, I think that's pretty well accepted. So I was wondering perhaps an alternative to your suggestion would be a check box, where the reporter checks the box and says we certify that these chemical releases do not cause health effects, because EPA obviously has not made that decision.

MR. MCNEALY: That's a good point, and frankly one that I can tell you that we've discussed with EEI member companies, but yes, it's a good point.

MR. ORUM: Do you envision a box that indicates whether something has been previously studied by EPA. Would you support putting a box on the form that says whether something has been previously studied by that facility?

MR. MCNEALY: To me that sounds like an option that we would take a look at.

MR. KERCHNER: George Kerchner, Howery and Simon. Isn't EPA sector facility indexing project going to be using TRI data to address some of the issues you just brought up or am I incorrect? Is that the intention?

MR. HAZEN: That's not a project that's being done within our office, but my understanding of the sector facility indexing project that it is meant to look at relative risk among or amongst different facilities and not to be a true measure of risk but rather relative risk rankings among facilities. Again, we're not doing the project, but my sense is that it's allowing communities to sort of look all around and do a relative -- this facility relative to that facility may warrant more attention than another. I do not believe it is an absolute risk indicator. I could be wrong, but I believe that's the focus.

MR. MCNEALY: Again, based on the templates that I've seen on the program that you're speaking of, the TRI numbers would be there and certain other pieces of information about the facility would be there, but at least on the template that I took a look at, it wasn't really clear that the numbers were covered under specific permits or specific EPA programs.

MS. HAZEN: I think you have one more question.

MS. SHAPIRO: Just a comment from the second facility -- Ellen Shapiro with the American Automobile Manufacturers. One of the issues relating to that project is it cannot identify the fact that a lot of those releases are in fact permitted and allowed by law. It's presenting the TRI data as if they were not permitted by law in some ways. So to the extent that either they are allowed under law based on a thorough review by state officials as to their risk level or reviews under other forms in terms of their acceptability to society, there's no distinction made at all in that project. It's one of the reasons why we have a big problem with it, not to mention the other methodology issues and using TRI in an enforcement context because they're apples and oranges.

MS. HAZEN: Thank you. Tom Natan.

MR. NATAN: My name is Tom Natan. I'm research director of the National Environmental Trust. Up until a week ago, we were called the Environmental Information Center, so in case you hadn't heard of us, now you know why. I'm on the NACEPT committee that's examining this and I really hadn't planned to come to speak today, but over the past week or so I've talked with our field organizers in our 12 organizer states and approximately 40 of the 200 state, local and national organizations who are participating in our right-to-know coalition and because of that I thought it would be useful to pass along some of the suggestions that they had made in the context of what I discussed with them that we had already discussed in the NACEPT meeting.

Their impression, and I back them up on that, is that the brouhaha over releases has to do more with the way they are portrayed in the press than the way they are portrayed in the form. The reason that most people seem to want changes to the form is that if EPA is not going to change the way it releases its data in public data releases and presentations, then they want to be able to point to the form and say EPA doesn't consider this to be as bad as that.

We would like to strongly urge EPA to reject any labels that places any relative value on any releases. We believe that the community has the tools and the capacity to decide for itself what releases are important to them. So we personally like the Form R is now. We don't have any objection to summing the different sections of section 5 together to get total releases. One of the reasons that we would support continuing to do that is because there is a continuity of data that goes back now to 1988 and we would like to see that continued. Quite frankly, it is extremely useful to be able to point to those numbers, and EPA does it all the time, to show that they're going down every year.

However, beyond that kind of presentation, we are concerned that what this discussion is doing is focusing on what these things are called rather than reducing their quantities.

Now, we could argue from now until whenever about whether there are leaks from underground injections, whether there are leaks from RCRA C landfills. The environmental community has submitted many comments to EPA about that sort of thing. So I'm not going to rehash them here. Let's just say that we support the EPCRA definition of releases. We also support the summing of releases as required under EPCRA.

Now, having said that, our coalition members are strongly in favor of having more reporting on individual destinations of releases rather than some of the broader quantities that we have. Other disposal, for example, in section 5.5, we would like to see individual line items for things such as slags, slag tailings, and individual classifications of RCRA C landfills, also for combustion waste without a label as to whether one is better than

another. However, should EPA decide that they are going to have some kind of public data presentation scheme that would differentiate between different kinds of releases, they would be required to have that kind of information anyway. So we would support it. Now, the fact that we would also support that it be unlabeled on the form as being in any particular category however.

We would also like to see these individual quantities echoed in section 6.2, which is off-site transfers to disposal. We would also like to see in the class I and class II through V injection wells in section 6.2.

We would also like to see as a separate line item in section 5 the amounts of chemicals that are released in products. If you don't want to put them in section 5, put them in section 6 as off-site transfers, that would be all right too.

As I said, we don't really support any particular labels. Is there anybody here from New York, the Petroleum Institute today? Since the vast majority of your air emissions are fugitive air emissions and therefore unpermitted and unexamined, I would think you would be opposed actually to including something like permitted or examined in a classification scheme for releases. We are as well. We think permits are simply licenses to pollute and they recognize best available technology among other things. I quite frankly, I think you would find the public up in arms if they knew about the extent of your actual permitted emissions. One of the reasons they don't is because permits are so damned complicated to read and understand. If you want greater examination of your permits, be prepared to have a hue and cry for lessening your permit limits.

Finally, as far as the data presentation goes, one of the things we discussed in the NACEPT meeting was the concept of lumping quantities into direct and indirect releases. When someone was asking for a classification scheme and names that could be used for those, those were the best that we had heard so far. If it turns out that EPA finds the need to characterize releases, then we would support the use of the terms direct and indirect releases. As long as there was still reporting of total releases, you could have a separate line item that reports total direct releases. Then the indirect releases would be those things such as class one injection wells, RCRA C landfills, perhaps slag and tailings and materials of that nature.

That's all I have. Anybody have any questions?

MS. MOSES: you made the comment that you would like to see more information of individual destination of releases. Can you give me an example?

MR. NATAN: Currently class I and class II through V injection wells, I use destination as another term. They're either releases to air, water or land or they're underground injection. Within that, within releases to land, you have different destinations. Is it slag, is it tailings, does it go into RCRA C landfill and is not reported? What other type of RCRA landfill does it go in rather than just total landfills, total other disposal? More information like that, if it turns out that EPA has to have some kind of direct/indirect classification, will allow that classification to be made. However, we won't support having industry simply report a total indirect release number without letting us know what those individual destinations are. That's what I meant by destination.

MR. COOPER: The National Environmental Trust opposition to placing relative values on releases, is the result of that an opposition then to the whole idea of a waste management hierarchy.

MS. FEIL: Please state your name.

MR. COOPER: Chris Cooper with CKRC.

MR. NATAN: No, we're not -- we support the environmental management hierarchy as it is, recognizing that source reduction should be achieved wherever possible, then whatever could not be reduced by source reduction, that waste should be managed by recycling first, then energy recovery, then treatment in that order, and then whatever is left over obviously is released in disposal. What I'm saying is that by putting a value judgment in a name that is associated with a particular release or disposal as reported on the form would indicate that EPA thinks that one is more dangerous than another. That may not be true for an individual facility and the people who live around it. They have the ability to make up their minds on that.

MR. SKERNOLIS: Is a placement of a TRI chemical into a product an indirect release?

MR. NATAN: I think that releases to product can be a separate line item apart from direct and indirect.

MS. FEIL: Can you state your name please?

MR. SKERNOLIS: Ed Skernolis.

MR. FEIL: Thank you. We're going to take one more speaker and then take a 10 minute break, but first Paul.

MR. ORUM: I talked to both Rex Tingle and Rich Puchalsky and don't believe either are coming, so if you're watching the clock, you might want to know that.

I'm Paul Orum, coordinator of the Working Group on Community-Right-To-Know in Washington, D.C. We coordinate community and public interest groups all around the country working on various right-to-know issues.

I'm going to start off with a bit of a criticism. EPA is asking for comment on a number of specific issues. We think these issues are very easily resolved, and although we're very interested and always supportive of public involvement, it seems unusual that EPA is devoting as much time as it is to hearings on issues that we think are already in many cases largely resolved. We would prefer to see public meetings more on the broader issues of the scope of reporting. It makes it much easier for community groups who know what they want but don't necessarily know the form. I think that may affect some of the future hearings in Chicago and San Francisco and elsewhere.

It may also be misleading to communities to have these hearings. It creates the appearance of public involvement but in fact represents industry driven access to government processes in terms of the issues that are put on the form. We especially feel that the Office of Management and Budget is keeping alive certain issues that really should have been settled long ago.

To the specific issues, under source reduction, EPA is asking about how to distinguish waste generated at a facility from that generated elsewhere. This is a nice easy one to start with for me anyway. In May 1995, at a public hearing on expanding TRI, I presented the working groups comments on this. This is what I said at the time. As EPA expands TRI to a large tier of waste management industries, it will help to distinguish waste generated at the reporting facility from those generated elsewhere. EPA should add to the TRI form a simple indicator of where waste is being treated, where waste being treated came from, the facility at which it was managed or from another facility. Making these sources separable will improve data presentation and address the so-called issue of double counting. This would also help present source reduction at facility A by making separable waste management activities corresponding to waste generated at facility B.

So on the record, this was a reporting change that EPA can do it in two

simple steps. One, put on the form the element that's required under the Pollution Prevention Act summing 8.1 through 8.7 in section 8 of Form R. Second, add a box that indicates simply how much of that waste came from another site.

Those steps would also, of course, provide a much greater focus on source reduction and the total waste number and the need to reduce that number. We would also recommend that EPA add to the section 8 an actual number corresponding to the amount of waste reduced through source reduction from year to year.

The definition of release, many industry groups have come forward to say subtitle C landfills, slag piles, coal ash disposal, underground injection is not really a release to the environment. However, these disposal practices are associated with many, many examples of contamination. I brought a lot of paper here documenting some of these contamination cases.

I will start with coal ash. This is one documented case of groundwater contamination from disposal of coal combustion waste. I won't read all of these. Just to give you a flavor of it, the Allen Plant in North Carolina shows elevated levels of arsenic and cadmium many times exceeding primary drinking water standards. The Dave Johnson Plant in Wyoming, there again cadmium, manganese and sulfate exceeding water standards. The Sherborne County Plant in Minnesota, chromium up to 16 times the primary drinking water standard. It just goes on and on and on the list of examples that are like this.

I've brought a number of reports that are cited here, some of which are copied here, some of which are only cited giving these examples.

Similarly, underground injection, I brought another stack of reports. There have been at least 39 well failures leading to significant waste migration. Some of these have contaminated water. A variety of GAO reports and other sources are cited. We won't go through all those, again there's a stack of reports.

Will there be a docket then for this material?

MS. HAZEN: There is a docket. This material will all be placed in it.

MR. ORUM: Thank you.

Similarly, for hazardous waste landfills, we've got a landfill liner fact packet prepared by the Citizens Clearinghouse for Hazardous Waste and have a number of Federal Register citations from EPA which I've included in my comments.

The one I would like to read is this one. Some have argued that liners or devices that provide a perpetual seal against any migration from a waste management unit, EPA has concluded that the more reasonable assumption based on what is known about the pressures placed on liners over time is that any liner will begin to leak eventually. The bottom line is all landfills will leak. The Mineral Policy Center for Mining Slag has also presented a list of contamination cases.

I think that these examples that I've given and others documented here make it very clear that these are releases to the environment. EPCRA makes that clear and we would strongly oppose any attempt to call them anything other than releases to the environment. But I think you can provide much greater interpretation to the public by supporting boxes and by adding boxes and codes to the TRI form in sections 5.5 and 6.2 that better indicate what sort of disposal methods are used, the class of the landfill, the type of landfill, the class of underground injection well, the form of disposal for mining slag and the like.

I think that EPA can also consider better ways to interpret what happens to TRI chemical releases. The best term I've heard is the distinction between direct releases that become bioavailable in air, water or land right away or indirect releases that

become bioavailable over time or in an unpredictable manner in the future.

To answer your question to Tom Natan, you could make the same distinction for the products. We certainly would like to see also the products included in the definition of release.

There are a number of other specific issues that I will go through without detail. They have to do with the scope of reporting. I would like to see EPA lower the reporting thresholds for persistent toxic chemicals, including for power plants, refineries and other facilities that use raw materials in concentrations that are below the TRI de minimis threshold.

Close the standard industrial classification, the SIC code, a loophole. In 1995 and again in 1996, the Working Group presented comments that indicated where facilities were not reporting because the SIC code that they were reporting under was split up in too many segments such that none presented a large enough portion to report.

I will resubmit our comments submitted at those meetings and I would like to figure out also how to raise them at OMB.

Add peak release reporting to TRI. One of the major difficulties in doing the kind of health assessments we've heard discussed earlier is you don't know whether something came out in one day or a little bit each day over the year.

Add materials accounting and occupational exposure information.

Add publicly owned treatment works, sewage plants to TRI, they should report their releases.

Finally, no two more, we would strongly oppose depriving communities of information, community right-to-know information by raising thresholds on Form A and further would strongly oppose the problems that are caused by creating a differential that treats some waste management methods as superior to others.

I'm also submitting a report we prepared in 1991 called "The Recycling Loophole and the Toxics Release Inventory, Out of Sight, Out of Mind". You may remember that in the early years of TRI, off site reporting to recycling was not included and at that time because of problems that caused for our interests in source reduction and pollution prevention, we prepared a report that documented many examples of contamination.

Finally, the last thing, as John Chelen mentioned, a great deal of efficiency could be gained by incorporating part one of the TRI form, the facility identification information into a universal national or uniform national facility registration scheme that would then link to other information reported also by those facilities.

I will leave copies of all of this and would be glad to take any comments.

MS. HAZEN: Any questions?

MR. KUHN: Let's assume we accept your position --

MS. FEIL: State who you are please.

MR. KUHN: Scott Kuhn, Laidlaw Environmental Services. Let's assume your position that landfill liners do leak, wouldn't it provide more useful information to the public to report when or if and when that leak actually occurred rather than the amount of waste that was placed in the landfill cell itself which would in effect mask any true releases that occurred?

MR. ORUM: I think it would be very useful to know when such leakage occurs. I'm quite skeptical of the ability to truly monitor and report that, and definitely support making sure that the amount that's placed in that landfill remains reported.

This landfill liner fact pack that I brought in does have a number of examples of a landfill that was leaking. Laidlaw says it's not a problem, people get up in arms and so on and so forth. I just don't know that it would really -- I would be glad to have that information on what comes out in leaks reported, but I don't really know that it would get to your goal of changing the public perception of landfills, as long as that information on what was going into the landfill remained reported. We firmly believe that it should be.

MR. KEUHN: I don't think we have any hesitation on doing that ourselves. We believe that that does represent useful information. However, to characterize it as a release to the environment when the actual release would only occur if and when a leak through the liner system occurred, that would show -- if you look at the relative numbers that would be represented by such data, you would see a very extreme disparity between the amount that actually goes in the landfill cell versus what could in the event of a leak come out.

MR. ORUM: I think that the definition of release to the environment in EPCRA, I think it's section 329, paragraph two, is very comprehensive. It's air, land, water and the interrelationship among all of those things. In my environment, putting chemicals in a landfill is a release to the environment, no question about it. There is no magic place that simply away that is not a release to the environment.

MS. FEIL: Okay. Other questions?

MS. MOSES: Carolyn Moses from PEPCO. Can you expand upon your notion of direct/indirect, bioavailable immediately or indirectly and does it relate to things like putting stuff in a landfill and be indirectly bioavailable or anything like that?

MR. ORUM: I think when it comes out of PEPCO's stack in the air, that would be available right away. If it's in a landfill, that's available over time. It's going to leak. It's going to be available. Right now, it's somewhat contained, it's going to come out over time. That was just my idea of how you would think about the distinction.

MS. MOSES: And who would be making those determinations, what's bioavailable?

MR. ORUM: It would have to be standard. I don't know if when you really sat down to look at it you could make the distinction between direct release and indirect release, but that was the best tern we had heard coming out of these NACEPT meetings.

MS. MOSES: For instance, if something comes out of our stack and goes over the ocean and [inaudible], would that be indirect or would that be direct?

MR. ORUM: It would clearly be direct. Anything in air, in my opinion, anything in the air would be, it's out there right now.

MS. FEIL: Okay. We will take two more questions and then we have to move on.

MS. SMITH: I'm Catherine Smith from the Chemical Manufacturers Association. I wanted to explore how you see making distinctions, if you go down the route where you now look at chemicals going into your products, how would you make a distinction for the public in terms of once a chemical goes into a product is it then okay, or would you just not bother making those distinctions? In other words, some chemicals go into products and there is no risk in the product once it goes out the door of the facility to somebody who then purchases that product. Some perhaps are a little bit more open ended. Some things, it's the fact that the chemical is in the product, for instance, in pharmaceuticals that is the very nature of the product. It's good for the person who then purchases it. How would you then make those distinctions if the number comes out and you've got release numbers associated with products and there's no distinction made in the relative risk of that?

MR. ORUM: We would like to see more on the life cycle of chemicals in products and to know where there are environmental and public health hazards that derive from those. Just how you do that I'm not sure. My suggestion was whether something is bioavailable or not. So I hadn't really thought it through, but we would like to see more information on what happens when the chemical is made and then enters commerce and is disposed. The other way too, when it's mined and processed and brought to the facility.

MR. BROMBERG: Kevin Bromberg, Small Business Administration. Which Form A thresholds do you oppose raising and why?

MR. ORUM: There's only one threshold for Form A. It's set as it is. The reasons for opposing raising it are one, it would deprive communities of valuable information, the reasons for changing to a differential in which you would favor say recycling over some other disposal method is that you then take away all of the incentives for source reduction and so forth we heard about earlier. There was one potentially interesting suggestion here from about the second speaker of potentially expanding Form A in a simple manner to include information on where chemicals go. We would have to look at that if there were anything. We did comment in favor of doing that last time around.

MS. FEIL: Okay. I think we're going to break for 10 minutes. Please come back in exactly 10 minutes because we need to give everybody a chance to speak.

[Brief recess.]

MS. FEIL: The next speaker is Steve Pattison.

MR. PATTISON: Good afternoon. My name is Steve Pattison. I'm the Supervisor at the Air and Waste Management Unit at Baltimore Gas & Electric Company. I appreciate the opportunity to present comments today on BGE, but also the Utility Solid Waste Activity Group, which I would like to give a brief overview of who they are, who we are.

We like the opportunity, and appreciate the opportunity to report on ways to improve the reporting of information to the EPA as required by section 313. In particular, my comments will focus on ways to revise the Form R, to minimize the significant risk of community misperception that currently exists and to make the submission of reportable data more easily understood by local communities, regulators and other interested parties. I should point out, I do have copies, I just made about 20 copies of comments.

Let me begin by describing USWAG and why we share EPA's interest in improving the way section 313 information is reported. USWAG is an informal consortium of the Edison Electric Institute, the American Public Power Association and the National Rural Electric Cooperative Association and approximately 80 electric utility operating companies. Our areas of primary responsibility for the industry include regulatory programs affecting solid and hazardous wastes, PCBs and storage tank management.

EEI is the principal national association of investor-owned electric power and light companies and it already has made a presentation earlier today which we fully endorse. APPA is the national association of publicly-owned utilities. NRECA is the National Association of Rural Electric Cooperatives. Together, USWAG members represent more than 85 percent of the total electric generating capacity of the U.S. and serve more than 95 percent of the nation's consumers of electricity.

The electric utility industry consumes a large majority of the coal produced in the U.S. Coal is responsible for the production of more than half of our electricity. Electric utilities currently produce roughly 100 million tons per year of combustion residues or byproducts from burning coal. The disposal and utilization of these byproducts in

an efficient and environmentally sound manner has always been of utmost importance to the electric utility industry.

USWAG was formed in 1978 as EPA began to develop a regulatory program to implement RCRA. The major issue under RCRA facing the electric utility industry at the time was whether the high volume byproducts of fossil fuel combustion, fly ash, bottom ash, boiler slag waste and flue gas desulfurization material waste, and other wastes generated in conjunction with the combustion process warranted regulation as hazardous wastes. To answer that question, Congress enacted an amendment to RCRA in 1980 known as the Bevill Amendment that specifically directed EPA, among other things, to study these combustion waste streams, to report its findings to Congress and to make a regulatory determination based on the information assembled in the course of the study.

The first phase of EPA's study was completed in 1988 and the agency recommended in its report to Congress that the four high volume combustion wastestreams do not warrant hazardous waste regulation. That recommendation was made final by EPA in 1993. The second phase of this study will be completed in the fall of 1998 and EPA expects to issue its regulatory determination on the remaining wastes in April of 1999.

EPA and the industry have increasingly recognized the importance and commercial value of beneficial utilization of these combustion byproducts in lieu of their disposal as wastes. In 1993, EPA strongly encouraged the beneficial use of coal combustion byproducts. Both EPA and the industry have recognized that the manner in which EPA classified these materials for purposes of regulating their disposal would greatly influence the development of potential utilization markets. Similarly the manner in which EPA characterizes the management of combustion byproducts and the TRI reporting program is likely to have a major effect on the industry's ability to divert large volumes of these materials from disposal as wastes to utilization in commercial products.

For this reason, USWAG has a strong interest in ensuring the accuracy of TRI reporting data associated with the management of combustion byproducts in land-based management units. As I will now explain, the current format of section 5 of Form R sends a confusing message that could mislead the public into believing that the management of combustion byproducts is a cause for serious environmental concern despite EPA's determination that utility management of these byproducts does not warrant hazardous waste regulation.

I will go now to some detail or more specific comments about revisions to the Form R. In the issue paper prepared by EPA for this meeting, EPA acknowledged that a major concern with the current reporting form stems from the definition of the statutory term release. As currently defined, first, the term makes no distinction between regulated activities and unregulated spills. Secondly, it makes no distinction between discharges authorized by a permit or accidental and unauthorized discharges. Third, it makes no distinction between the disposal of waste into an engineered pollution controlled land-based management unit and the migration of the waste constituents out of the unit and into an environmental medium. Last, it makes no distinction between on site management of waste pursuant to a permit and the notorious "midnight dumper" in the "back 40."

All these examples, the good, the bad and the ugly if you will, have the same EPA characterization, that is it's a release. Since the term release is typically understood by the public and the regulated community to signify some degree of endangerment to human health or the environment, at least under several of the regulatory programs administrated by EPA, the danger of misperception by local communities to EPA's characterization of

all of the above activities into the TRI reporting program as releases is quite high. Responsible management in accordance with permit requirements is tarred by the same brush as environmental misconduct. Indeed, EPA candidly recognized in the final TRI expansion rule "that the potential exists for the data of TRI to be mischaracterized and/or misunderstood."

In seeking public comment on how to address the risk of misperception, EPA has limited its remedial options to modifying the format and nomenclature of Form R and has expressly ruled out addressing the ultimate source of the problem, EPA's expansive definition of the term release. USWAG and BGE will abide by those ground rules in their comments today, but we hope that EPA will at some point in the near future take a fresh look at the definitional issue and assess whether its current approach does not ultimately undermine public respect for the standard-setting mechanisms of the myriad environmental programs EPA administers.

Turning to section 5.5 of the Form R that contains the reporting section for land-based management of wastes on site. USWAG and BGE offer the following suggestions for clarifying the data and reducing the risk of misperception. In column A, which currently is identified by the heading "Total Release", we propose the same information that's currently reported in that column continue to be reported, but that the heading be changed to read "Total Quantity Placed on or into a Management Unit". The effect of this heading change would be to make it clear that the data in column A report quantities of TRI chemicals being stored or disposed in on-site land-based management units. It adds a level of precision in nomenclature that is currently lacking in section 5.5. We also fully concur with EEI's recommendation applicable to all of section 5 to add a column that explains whether the management activity is authorized by a permit, a state or federal regulation, or is unregulated.

We would suggest the addition of a new column C that would have as its heading the phrase, "Total quantity migrating from the management unit into an environmental medium". Again this concept has been raised by previous commenters here today. This column would provide new information not currently reported. It would identify quantities of TRI chemicals that are migrating into soil and possibly groundwater. By specifically breaking out in column C releases of constituents that are migrating out of a pollution control management unit and into an environmental medium, the agency would assist local communities in distinguishing activities that may pose environmental concerns and may require further action by the facility owner or operator from controlled waste management activities that in most cases are subject to regulatory controls and oversight. I want to emphasize that all land disposal data currently reported in section 5.5 of Form R would continue to be reported.

As I have already noted, because USWAG's concerns relate primarily to the management of combustion byproducts, our comments have focused on section 5.5. EEI's comments address recommended changes to section 5 that go beyond the management of combustion byproducts and land-based units, and as I've already noted, BGE and USWAG fully endorse those recommendations. If EPA adopts those changes to section 5, a conforming change to section 8 will also be necessary.

Let me thank EPA for holding these public meetings and allowing me to present suggestions to the agency that would more clearly inform the local communities on the true meaning of the TRI data reported on Form R and reduce the great danger inherent in the present reporting format to confuse and mislead the public. USWAG and BGE looks forward to working with you in the coming weeks to further develop these recommendations and respond to any questions.

MS. FEIL: Are there any questions?

Okay, thank you. Alan Septoff.

MR. SEPTOFF: I am Alan Septoff. I am standing in for Carlos DeRosa. I am with the Mineral Policy Center. I would like to say at the outset that we are basically in agreement with Paul Orum and the National Environmental Trust on this issue, so you know that's where we're coming from.

The Mineral Policy Center is pleased to address the EPA regarding the fate of Form R and the role of semantics in determining how much information the public is entitled to know about the presence of toxic chemicals in its midst. In particular, we're concerned with the potential narrowing or other alteration of the effective definition of release under section 5.

The Mineral Policy Center is especially interested in this issue because of the potential impacts of such a narrowing upon the classification of mining byproducts such as tailings, waste rock and slag. The Mineral Policy Center is a 3,200 member organization which advocates more environmentally responsible mining and mineral processing and educates the public about these activities' impacts on the environment and human communities. Many of the Mineral Policy Center's members live, work and recreate near sites of mining and mineral processing.

The Mineral Policy Center urges the EPA not to alter release definitions in such a way that would limit or obscure the amount of chemicals present in slag, waste rock or railings impoundments. Doing so would undermine one of the basic purposes of TRI, which is to provide communities with full information on toxics in their vicinity so that they can plan and take preventative measures before spills and leaks occur. The public deserves more than after-the-fact information about toxics that escape after accidents. Rather, the public must have up front release information on the amount of TRI chemicals and mining wastes in order to better anticipate and prevent toxic risks.

Having advance knowledge about toxic chemicals contained in mining byproducts is especially important for communities because of the limited and tenuous nature of most means of containment of these mining wastes.

Slag is usually deposited in outdoor piles that are exposed to hard to predict elements of water, snow melt and wind. Also, generators of slag usually install incomplete safeguards to protect environmental media from slag contaminants. EPA concluded in 1990 that for slag wastes, "industry-wide engineered groundwater controls are very limited.

Tailings are usually deposited as slurry in on-site impoundments contained by earthen dams of uncertain durability. This uncertainly is due in part to the numerous site specific factors involved in the optimal design of such a dam. In 1994, EPA's Office of Solid Waste noted, "What may work for one type of tailings may not work for another type and may not work for the same tailings at other sites. Also, the estimated quantity of tailings to be disposed is particularly important yet tailings quantity estimates are based on estimated reserves that change continuously throughout the life of the mine."

So, when industry speaks of these wastes being contained, the public has reason for skepticism. The mining industry's main argument for a redefinition of release for wastes such as tailings and slag is that due to their means of disposal they are not available to the environment and therefore shouldn't be considered releases as currently defined.

With respect to slag, industry claims TRI chemicals are locked up in slag's glassy structure, however contrary to this assertion, water testing by EPA and the industry itself demonstrates that TRI reportable metals leach out of slag, sometimes at concentrations that exceed drinking water and toxicity standards. The TRI reportable chemicals

found in slag leachate include persistent toxins such as lead, copper, arsenic, molybdenum, cadmium, mercury, iron, barium, chromium, manganese and zinc.

With respect to tailings dams, industry claims that irresponsible practices are past and that new dams are designed to last indefinitely. However, tailings dams aren't cooperating. The Mine Safety and Health Administration in 1992 reported that spontaneous tailings dam failures still occur. Over that year, several dams failed that, "weren't earthquake related and no major storm events preceded them. The dams just went." In fact, just within the past month, the BHP tailings dam in Pinto Valley, Arizona just went filling a valley with copper tailings. TRI chemicals contained within tailings are typically an ore and processing dependent mixture of heavy metals, typically including cyanide, lead, cadmium, arsenic and zinc among others.

Following are four cases showing TRI toxic chemicals are not safely contained in mining wastes as currently disposed. The first one, copper slag from an ASARCO smelter near Reston, Washington was used as ballast material in the tide flats at Commencement Bay on Puget Sound. In 1985, the Washington Department of Ecology Water Quality Investigation Section reported that runoff from log sort yards where the slag was used as ballast contained high concentrations of arsenic, zinc, copper and lead. Zinc and copper concentrations from runoff were found by the investigation to exceed EPA acute criteria for the protection of salt water aquatic life. A later state report concluded that the major source of elevated metal concentrations in the runoff from the log sort yards was in fact the slag ballast material. Testing by EPA at this site in 1986 and 1987 found high levels of arsenic, copper, lead and zinc in groundwater.

Two, slag piles at ASARCO's East Helena, Montana lead smelter, an NPL site, are considered a potential source of nearby groundwater contamination with arsenic as shown by a groundwater monitoring study conducted by ASARCO in 1986. In 1987, ASARCO measured elevated levels of arsenic and zinc in water within the slag piles.

Number three, a 1990 tailings dam failure at the Brewer Gold Mine in Jefferson, South Carolina released millions of gallons of cyanide waste into Forked Creek and the Lynch's River. Cyanide concentration of the spill was approximately 100 parts per million. The dam failed only months after construction due to extremely heavy rainfall for which designers failed to account. The rainfall had elevated the flow of an underground spring to the point where it eroded the dam to failure.

Number four, in the Big River Watershed, in a lead mining district in southeastern Missouri, the Army Corps of Engineers identified several unsafe tailings dams in a seismically active area. An earthquake in the area could cause the dams to fail injecting 200,000 tons of lead and 100 million tons of sediment into the system. According to the Corps, these failures would bury surrounding towns in 30 feet of tailings and damage the Big River ecosystem so badly that it would take a minimum of 2,000 years to cleanse itself.

The previous examples show that TRI chemicals present in the form of slag and mining tailings are available to the environment. At the end of the day, because of the mining industry, enormous amounts of TRI chemicals threaten communities where none did before. Therefore, EPA should resist industry's call to alter the definition of release so as to limit or obscure full release information on TRI chemicals contained in mining wastes. To do otherwise would undermine one of TRI's main purposes, to provide the public with data that it can use to make informed choices about where to live, work and recreate and to press for policies and practices that reduce risks of exposure to toxics.

MS. FEIL: Any questions? Okay, thank you.

Ellen Shapiro.

MS. SHAPIRO: Good afternoon. I'm Ellen Shapiro of the American Automobile Manufacturers Association. AAMA's members include GM, Ford and Chrysler. We appreciate the opportunity to present our suggestions today. I have with me Lynn Drinnan from Chrysler Corporation. She's an engineer. Lynn will be able to answer some of the more technical questions that you might have about our remarks.

We appreciate this opportunity to talk about this and we support EPA's efforts to redesign the Form R and clarify the Pollution Prevention Act's definitions and basically streamline the reporting process. These actions should help us comply with the spirit and the substance of TRI and the Pollution Prevention Act, while improving reporting consistency, accuracy and efficiency.

TRI, as good as it is, is an example of a reporting program that has some pitfalls in it and there are many areas where the data can be come corrupted after it becomes reported to a facility in various ways. We will give a little bit of illustration of it.

I will present a few slides here to talk about some specific concerns related to the Form R. We do have some other issues that we probably will provide comments on later on in written form. I don't know if there's a deadline for submitting those comments. We will try to get them in as soon as we can.

These comments overlap a bit with some of the remarks that Rick Lattimer made. Our basic messages to EPA to collect basic underlying parameters and allow calculated data to be done automatically or at the agency.

Some parts of Form R, especially section 8, simply ask the reporters to collect and process data that is contained elsewhere on the form. Not only does this take a long time, but it's also the source of various inconsistencies and interpretation problems that mostly occur after the information leaves the plant. The plant people know what they're putting together, but oftentimes when data are manipulated later on down the line, it's unclear exactly which underlying information that they came from and so interpretation problems can come up.

Some of the other inconsistencies arise due to fragmented implementation of the Pollution Prevention Act, reporting requirements and lack of definitions under the PPA. We found some of the reporting problems and discrepancies to arise the hard way in our work under the Common Sense Initiative in preparing the data package trying to assemble data for a better look at our industry overall and from a community perspective. We hope that that package will become available very soon. We expect the next few months that it will become available.

Under CSI, the contractor was asked to assemble information about releases, and it did so. In the process of trying to verify those numbers, they sent the numbers back to our members, our members looked at them and said wait a minute, these numbers don't match up, here are the corrected numbers. Went back to the contractor, the contractor said wait a minute, send them back to the plant. A lot of this had to do with drawing the underlying data, one party was drawing it from sections 5 and 6 and another one was drawing it from section 8 and they were both trying to say the same thing. Ultimately we did resolve the discrepancy, but it just points to how mishandling can occur, despite the best intentions and close attention of all the parties looking at the data.

A much better way we think to prevent this kind of problem is to design Form R to collect only the basic underlying parameters and then to apply an algorithm implemented through some type of software mechanism to mathematically derive the other

parameters. I will illustrate how this can be done for most of section 8. In particular, right now we're going to look at section 8.6, the quantity treated on site.

The quantity treated on site is very related to section 7A which collects information on on-site waste handling. We suggest moving the section 8 data basically to section 7A. Similarly, with section 8.2 and 8.4, we think these data elements can easily be moved to section 7B and 7C respectively. It's basically on-site energy recovery processes. Then the quantity used on site for energy recovery, and then 7C is on site recycling processes and 8.4 is quantity recycled on site. So we think it's a good match to move those parts of the form. That would help interpretation at the plant level and elsewhere as well.

Now focusing on section 8, column B, this is an area where it's very easy to create algorithms to calculate the remaining sections 8.1, 8.3, 8.5 and 8.7. Currently, the AAMA's members calculate these by hand using data from other parts of the form.

Section 8, column B calculations are a little bit I think intimidating to the uninitiated, but they are fairly straightforward calculations as a matter of fact. Section 8.1, which represents releases, is the sum of data from section 5 and the sum of data in section 6.1 and 6.2. Section 8.3 is the sum of information specific boxes from section 6.2, 8.5 similarly, other boxes from section 6.2 and 8.7, 6.2 and some 6.1

I should note here that EPA recently changed its interpretation relating to the importing of metals to POTWs. That's what this represents, POTW metals up here, here and here and here. Those are the boxes where that reporting change had an impact. We basically disagree with the agency on presuming certain things related to metals going to POTWs, but I'm not going to go into the subdivision here.

We think if this is turned into an automatic calculation, then you can do one of two things, EPA can do one of two things. It can insert the equations into the form itself so that it automatically the numbers, and reporters no longer have to enter anything there, or EPA can generate it from the forms after it receives them here at the agency. Again, it would cut down on the opportunities for errors and misinterpretations.

Looking now at column A in section 8, EPA can do the same thing. This section, column A refers to the prior year reports. It would be very easy for EPA to import this data directly from its own databases. If the equation, if the algorithm were inserted into the automated Form R, which is an electronic check that reporters use when they file electronically, it provides the facilities an additional opportunity to do a check on the numbers to make sure that they're accurate.

Regarding column C and D, we have a real problem with these columns. These columns attempt to compile estimates about the two years following the year of the report. The parameters are especially difficult for the auto industry where the only thing that's constant is that everything is changing all the time. We found the numbers nearly impossible to generate and subject to tremendous uncertainty. They were based on unpredictable factors relating to the economy, facility shutdowns, new product lines, chemical substitutions and reformulations, new processes of equipment, et cetera. The data are very speculative at best. We fail to see how anybody could rely on them for any analytical purpose.

In any case, we know that the Pollution Prevention Act only calls for this information as a percentage change, a general percentage change rather than actual quantities. It applies only to chemicals entering any waste stream or otherwise released into the environment or recycled, not those treated or sent off site to secure disposal sites.

Relating to EPA's issue paper that was released for the purpose of this meeting, we didn't quite have enough time to go through it in a lot of detail, so we will

provide additional comments later on. However, I will talk about a couple items that were put up for comment.

EPA sought input on whether to add three new data elements to Form R. One of them total waste management activities would be derived from parameters in section 8. Again, consistent with our earlier suggestions, we recommend that EPA only collect the basic data directly from reporters and allow some automatic mechanisms of some sort to produce any kind of data compilations or further calculations based on those data.

For the other two data elements, quantities generated on site and received from off site, we need to examine the extent to which they can be derived from existing data. In principle, we think adding new data to the form should occur only as part of a consolidation effort or after such streamlining is underway. AAMA feels strongly that proposals for additional data elements should undergo a rigorous evaluation of currently reported information and an assessment of the need for any new information. As we understand, EPA's Center for Environmental Information Statistics does plan to do through its data registry process, so we think this is the sensible rational way to manage a database.

Having said that, we do see some value in looking at ways to address the anticipated problem of double counting, TRI waste streams and we would like to be part of the ongoing dialogue.

So in closing, our main message again is collect only the basic parameters and use automatic mechanisms to derive other data. We thank you for your attention. We would be happy to address additional issues later.

MS. FEIL: Are there any questions?

MR. ORUM: These data are not only reported to EPA, but obviously to all 50 states and some territories. Would these parameters and procedures then have to apply uniformly across all those 50 states in compiling data? How would you oversee that?

MS. SHAPIRO: I'm sure some system can be developed. To be honest with you, I think the state question, TRI is a national database and there are consistency issues relating to that. To the extent states do something different, there still is the basic TRI data that's reported to EPA. I would think that should be consistent across the 50 states. Now, some states go beyond the TRI form. I think the basic principle could apply there as anywhere. The modern computers have great capabilities in software and great capabilities of generating new kinds of data. People are always going to want to extract new information from the underlying data, but data in and of themselves don't really provide all the information people want, but they can be combined in various ways.

I'm not suggesting that any way of combining them necessarily gets the answer people are looking for, but I think to the extent you can provide automatic mechanisms to combine data, it's a much more secure way of doing it and will prevent lots of places and opportunities for the data basically to get corrupted along the way so that at least when you do combine it you come up with a number that has a sound foundation.

MS. FEIL: Any other questions? Okay. Ben Smith.

MR. SMITH: Thank you. My name is Ben Smith. I'm outreach coordinator for the Environmental Defense Fund's Pollution Prevention Alliance Program. I'm actually standing in for Lois Epstein who is the senior engineer at the EDF Washington office. She prepared this testimony and unfortunately couldn't be here today.

EDF is a nonprofit environmental research advocacy organization with about 300,000 members nationwide. They've been involved in TRI and right-to-know for a long time, ever since the passage of EPCRA.

EDF believes that any potential revisions to EPA Form R should enhance the source reduction emphasis of the form and should not diminish information that is now used by the public to understand the details of multimedia waste generation and subsequent waste management.

Along those lines, I will first discuss EDF's views with respect to section 8 of EPA Form R, which covers source reduction, and then I will respond to some issues raised by the October 22, 1997 Federal Register notice and the associated issue paper. Finally, I will describe some improvements to EPA Form R that should be included in any form revisions.

First, and perhaps the most important change to enhance source reduction is to require facilities to report in section 8 the total quantity of the chemical entering any waste stream or otherwise released into the environment prior to recycling, treatment or disposal during the calendar year for which the report is filed. That is facilities should report the total current section 8.1 through 8.7 as required to be reported under section 6607B1 of the Pollution Prevention Act of 1990. Currently, because reporting facility staff are not forced to add up the quantities in sections 8.1 through 8.7, the staff and media are often unaware of the total annual production waste quantity. They are aware of the section 8.1's quantity released. As a result, reductions made by facilities because of the TRI are often focused on reducing quantities released using most often pollution control, rather than reducing the total production of waste through source reduction.

To address the section 8 concern raised by EPA in the Federal Register notice about waste generated off site, but managed at the reporting facility, EPA should simply require reporting of the quantity of total production waste not generated at the reporting facility. For many or most manufacturing plants, for example the bulk of the TRI reporting facilities, the quantity of total production waste not generated at the reporting facility is likely to be zero.

Another critical addition to section 8 to enhance source reduction would be to require reporting of the quantity of the toxic chemical contained in product. This information will be very valuable to the public for three reasons. Number one, the quantity in products frequently offers opportunities for source reduction in the public and decision makers are aware of the amounts. Number two, vast quantities of so-called products may be transferred off site for energy recovering or recycling. It's useful to track this product chain to see whether source reduction options have been explored. Number three, in some cases, products pose toxic chemical release hazards to consumers, for example, p-dichlorobenzene in mothballs.

Additionally, form R needs to require facilities to report actual quantities of waste not generated by source reduction activity. Currently, facilities report whether they have engaged in any source reduction activities for a toxic chemical during the reporting year and if so, they report the types of source reductions activities and the methods to identify activity. But they do not report the quantities not generated through each type of source reduction activity.

Finally, current section 8.10 needs to require facilities to identify the substitute chemicals used when code W42 or substitute raw materials is reported as a source reduction activity. In the absence of such reporting of substitute chemicals, raw material substitutions may merely replace one chemical with another.

A note on data quality in section 8, it would be helpful for the EPA to better differentiate in its reporting instructions between in process recycling and on site recy-

cling. Additionally, Form R instructions need to provide better guidance on how to calculate the quantities undergoing in process recycling and on site recycling since releases from recycling currently are calculated in several different manners, for example, based on the amount recovered in the recycling process with one pass-through, based on the number of times a chemical passes through the recycling process.

In response to potential changes in sections 5 and 6, based on information in the Federal Register notice and in the associated issue paper, it appears that most concerns with the term release raised to EPA are related to public data dissemination and the result of interpretation rather than the content of Form R sections 5 and 6. EDF's interest is in seeing the information about waste management in sections 5.5 and 6.2 be as specific as possible perhaps requiring the use of additional codes and then developing an appropriate dissemination and interpretation strategy for these data on releases.

EPA's issue paper questions whether the chemicals reported as total quantity transferred to POTWs in section 6.1A of Form R should be broken down by facilities into quantities released from POTWs or should the amounts that pass through sewage treatment plants into air, water and sewage sludge and quantities treated by POTWs which are the amounts transformed into non-toxic compounds in the treatment plant. This proposal is problematic and EDF opposes it because different chemicals have different pass-through to transformation proportions, depending on chemical complexity, composition, volatility and other chemical specific factors. Thus, any guidance on chemical pass-through transformation would necessarily represent only what would occur at a standardized treatment plant and not what would actually occur in a particular location. Moreover, should this precedent ever be extended to other types of off site waste management, huge additional inaccuracies would be injected into the TRI reporting system since reporting facilities might only have very imprecise knowledge of treatment and recycling efficiencies by chemical compared to that known by the waste management facilities themselves.

EDF strongly endorses several improvements to Form R and the TRI Program in general pertaining to peak release reporting. EPA should require peak release reporting on Form R, for example, reporting the largest quantities released into the environment to help the public assess and address the human health and environmental effects of acutely toxic chemicals released by facilities. Additionally, EPA should require reporting from facilities on the number of times these peak releases recur in a year. This relatively modest request for additional information would be very useful for comparative analysis of acute hazard and risk from facilities where current TRI reporting only can be used for a comparative analysis of chronic hazard and risk.

Threshold issues. On threshold issues, EPA should not raise the reporting threshold under Form A because to do so would deprive communities of basic right to know information that is now required to be reported under Form R. Likewise, the manufacture, process and otherwise use thresholds need to be lowered. Right now, rural states have little information under TRI about polluting facilities since most larger plants in these states do not meet these lower thresholds.

Chemical use reporting. Last but definitely not least, EDF reiterates its support for requiring materials accounting reporting under TRI, most importantly to help identify source reduction opportunities and improve data quality.

I just want to thank you for letting me make my comments. I would probably refer you, if you have questions, to Lois Epstein who will be back in the office tomorrow. She will probably be able to answer your questions a little bit more comprehen-

sively than I would.

MS. FEIL: Thank you. Jeff Thomas.

MR. THOMAS: Good afternoon. My name is Jeff Thomas, I'm the environmental analyst for OMB Watch. OMB Watch is a strong advocate for providing the public with greater access to right-to-know information and has been deeply involved with the Toxic Release Inventory since its inception. Working jointly with UNISON Institute, OMB Watch operates RTKNET, which among other things provides public access to TRI data. Additionally, RTKNET staff provide technical assistance to users of TRI, conduct analyses of data, and have explored how the public uses the TRI data in their communities.

When we participate in opportunities like this to explore how we can add to and improve TRI, it is from that vantage point that we come at it. What can we do to make TRI and right-to-know in general more accessible and useful to the public.

In light of that, we are pleased to be able to offer comments to the EPA on ways it can streamline TRI reporting forms, reduce reporting burdens and improve the type of information made available to communities. We believe streamlining and burden reduction can take place while improving the amount and quality of information provided to the public. We are concerned, however, that EPA's description of what should be covered through these public meetings may be too narrow, too focused on this important balance. The schedule of public meetings should be an opportunity to not only describe means of reducing burden, but also how TRI can be improved.

Accordingly, our statement today covers our response to the issues EPA has raised in its October 22 Federal Register notice. Additionally however, we are raising other issues that the EPA has not specifically addressed in that Federal Register notice.

To address those specific concerns first, on definition of release in section 5 concerns, with respect to EPCRA's statutory of release, the EPA has appropriately interpreted it when addressing the phase two expansion of TRI. Specifically stated, a release means a spilling, leaking, pumping, pouring, emitting, emptying, discharging, injection, escaping, leaching, dumping and disposing to the environment. This definition, we believe, leaves no doubt that the section 313 chemicals disposed in entities such as underground injection wells, and RCRA subtitle C facilities are indeed releases. We support the agency's adherence to the statute's definition and encourage them to maintain that position.

Building on the changes made to the 1996 Form R, EPA may want to consider additional data elements to section 5 in order to provide greater clarification among release types. In light of the pending addition of new disposal and emission types, mine tailings and slag in particular, it would be helpful if there were additional subsets of information that reflected differences between disposal methods.

Ensuring further public clarification of data releases, we believe EPA could easily handle this through public characterization of its data. For example, the EPA annual data release report can distinguish between types of releases that are occurring, thereby distinguishing between a chemical release to the air and mining tailings or slag that may leach. Furthermore, EPA could supplement this report with a public education campaign that explains the meaning of the TRI data.

On source reduction changes, in particular section 8, we support the proposal to create additional data elements that would differentiate between totals generated on site and waste received from off site. Under the EPA's expanded definition of otherwise use, outlined with its phase two expansion of TRI, both of these sources of waste are accounted for under total waste managed. Such data elements would then prove necessary to

avoid double counting and provide greater clarification to the public.

In addition to these new data elements, we suggest other changes to section 8 that would aid facilities in their pollution prevention efforts and allow the public to have a clear sense of the progress being made in those elements. In particular, we recommend that facilities establish an annual total product related waste, or summation of sections 8.1 through 8.7. This total, coupled with the percentage change from each previous year, would make source reduction more straightforward, less prone to mischaracterization and serve as a gauge for facilities and communities in measuring their pollution prevention efforts.

Beyond the scope of these meetings and the particular concerns that were outlined, the EPA needs to consider broader improvement to TRI that will reduce the incidence of public misperception, assist further in source reduction and make overall information more accessible and useful.

In order to capture all releases and exposures of section 313 chemicals under TRI, the EPA must include chemical use data and in particular product stream information. Materials accounting data available in New Jersey and Massachusetts reveals that toxic chemicals shipped as or in product far exceed the amounts designated as a release or off site transfer. Inclusion of such life cycle information through additional materials accounting data closes the gap through which toxic wastes above de minimis amounts is transferred off site as product. Moreover, accounting for this waste stream allows for improved source reduction opportunities and in general provides information that workers and consumers have the right to know.

On lowering reporting thresholds, any discussion on the definition of release and what is considered a release must be complemented with a focus on how much of a release is considered adequate in order to be reported on the TRI. This coming year, the EPA will consider lowering the reporting thresholds for certain highly toxic chemicals including dioxin, persistent bioaccumulators. We support the lowering of these thresholds, seeing it as a necessary component of TRI's ability to account for dangerous releases to the environment.

Finally, and closer again our focus, ways to improve public access is something that needs to be considered whenever we take on the broader issues of how to improve TRI. EPA needs to take a closer look at how the data is collected and made available to the public. We believe significant improvements can be made. If done properly, these changes can result in making data more accessible and useful, as well as provide opportunities for reducing burden for reporting facilities.

The key identifier initiative, along with other identifier plans, needs to be elevated as a framework for planning and managing information collections. By elevating the key ID effort, key linkages can be made with other EPA data collections so as to reduce unnecessary burdens on reporting facilities. For example, Form R section 4 information should be linked with similar information and other agency reporting requirements thereby reducing the need to ask the same questions of reporters.

Additionally, the link between parent company and reporting facilities should be more thoroughly defined and the current four digit SIC code should be expanded to eight digits in order to provide greater clarification on the types of facilities reporting.

Programmatically, EPA should begin linking TRI with other federal agency data, including SEC data, Health and Human Services data and OSHA information. It should implement quality control measures to reduce data presentation errors and reduce the lag time involved in making data publicly available from the time it is collected from facilities.

Finally, for TRI to be truly effective as a community tool in reducing toxic pollution, the EPA must devote more time and resources to its outreach and training efforts. The benefits of this are many, to reduce public misuse or misunderstanding of the data. The answer is not to deny them the information they have a right to know, but rather to educate them on how to use it. For those communities needing the benefits of TRI the most, outreach and training by EPA would provide the free access and unbiased guidance that they need.

In closing, thank you for providing us with this opportunity to offer comments on how the EPA can reduce reporting burdens and make the TRI reporting forms more efficient. We emphasize again how truly improving TRI can only come through combining these narrow considerations with broader issues, some of which we outlined today. As EPA moves forward in implementing any changes to the reporting form, we encourage them to link those efforts with broader revisions that are necessary in ensuring a lasting and effective improvement. Thank you.

MS. FEIL: Any questions?

MR. EMERSON: Lloyd Emerson, Analytical Services. You and the prior speaker talked about reporting 8.1 through 8.7 in addition to those elements. What purpose would that serve?

MR. THOMAS: I think one of the things when we looked at section 8.1 is it would give the public a better sense of how much waste is being managed on site and combining that again with a percentage change from year to year would allow them to get a better sense then of the progress being made. I think from a facility standpoint, it will also allow them to take a better look at how effective they are in doing that.

I think one of the comments made earlier was just how speculative a lot of the data is. I think in general we would like to see changes made to make that data more concrete and then sum it up to give people a better sense of just what kind of waste management and pollution prevention efforts are going on.

MR. EMERSON: I think several people would take exception to that. The column in 8.2 and 8.3 refers to energy recovery, and in energy recovery the list toxic chemicals are destroyed. In that destruction, they no longer exist. So adding them in in section 8 would certainly be incorrect.

MR. THOMAS: The point is taken. I can't comment.

MR. ORUM: The point of adding that up to meet the goal of the Pollution Prevention Act, to reduce waste to the source so you don't have those materials and the need for energy recovery methods --

MR. THOMAS: I think that's also right, it moves away from pollution control and toward pollution prevention.MS. SHAPIRO: Ellen Shapiro, AAMA. You and many other speakers have talked about providing information about TRI chemicals contained in products. Do you think that providing information about the amount of metals contained in an automobile provides useful information to the public?

MR. THOMAS: I would be the first to admit that this is not something that can be done across the board. I think when we take a look from the public's standpoint of what information they need, I think there's a real concern about what's in the products the consumers are buying. I think on that basis we need to begin exploring just what we can report.

Now, obviously you raise a good point, there are some exceptions to that. If anything, it makes us engage in that process, it makes us need to be cautious. I don't

think at the same time it should prevent us from going down that route because I think there are genuine concerns we need to explore, but be cautious of the points that you're making.

MR. EMERSON: That comment about section 8.1 to 8.7 being added reflecting pollution prevention, the Pollution Prevention Act is silent with regard to energy recovery. That was added afterwards. They referred to source reduction, they defined source reduction and they talk about what source reduction is. Energy recovery is not covered under the Pollution Prevention Act. So I repeat that the addition of materials that are destroyed in the process of energy recovery would be incorrect to include that in the summed value in section 8.

MS. FEIL: Okay. One last comment.

MR ORUM: Can I ask EPA to address the history. I know you didn't want me to address this, but can you briefly address the history of that?

MS. HAZEN: We try very hard at these meetings not to answer the questions that have been posed to those who are being questioned. What is in section 8 of the form was very much a compromise between one interpretation of what the statute required and other interpretations of what the statute required. A number of speakers here today have very vocally criticized the fact that there are not definitions for section 8. The fact that section 8 looks the way it is and there were no definitions was not because the agency didn't move forward to do that. In fact, the agency did and section 8 looked very different than what you have on the form right now.

To discuss all of that and go into all of the gory detail I think is inappropriate at this meeting and something I'm really not ready to do, but I think suffice it to say section 8 really is designed to allow the public to understand how much waste is actually being generated and managed across this nation. I think the purpose of the summation of section 8 information is to allow the public to understand how much waste has been created in the first place. Whether or not it's being burned for energy recovery after it's created, whether or not it's being landfilled, recycled, whatever, my sense of the intent of that information was to allow the public to understand X billion pounds were created in 1996, X minus something billion pounds in 1997 and on and on and on. It really should be used as a benchmark seeing how much progress as a nation we are making. I hope that sort of --

MR. EMERSON: The point I'm trying to make is it currently doesn't show an addition of elements 8.1 through 8.7, which I think is the recommendation that's been made.

MS. HAZEN: It does not show an addition. I think if you go back and refer the history, EPA would have preferred to have a summation of total waste. It became a very interesting issue and so it is not on the form.

MS. FEIL: Okay. I think in the interest of time, we need to move on. We have two more speakers. Jackie Savitz.

MS. SAVITZ: My first recommendation is to start at the end of the alphabet next time.

[Laughter.]

My name is Jackie Savitz. I'm with the Environmental Working Group here in Washington. We're a non-profit environmental research organization. We have worked with TRI data to try to help communities around the country grapple with waste issues in their local areas and we've been involved with TRI since we've been around. I've been involved with TRI longer than EWG has been around and have commented in the past on the addition of use reporting data, so I'm not going to do that today, but would be happy

to take any questions if folks have them.

Primarily today, I'm here to talk about the problem of the lack of reporting by publicly owned treatment works, otherwise known as POTWs. About a billion pounds of toxic chemicals were released directly into waterways between 1991 and 1994. 1.8 billion pounds of toxic chemicals were sent to publicly owned treatment works during that time period. That's almost twice as much. If we don't have data on what's coming out publicly on treatment works, it's very likely that we're missing the boat in terms of what's being discharged to rivers and other surface waters around the country, but we can't even know which rivers we're missing the boat on because we don't know where the publicly owned treatment works are and what they're releasing.

This is why so many public and government attempts to address the amount of toxics getting into waterways have failed so miserably over the years. A good case in point was the attempt by the Chesapeake Bay Program, which is an EPA program, to do a toxics loading inventory for the Chesapeake Bay. After succeeding to quantify releases from very difficult sources such as urban runoff, atmospheric deposition, shipping, they stumbled for years over how to address point sources which should have been the easiest question to answer. The reason is because TRI is incomplete and was not useful in this effort.

In an attempt to estimate the magnitude of toxic releases to waters around the country for the benefit of local groups working on those waters, the Environmental Working Group ran into a lot of the same problems. They were all due to limitations in the TRI associated with publicly owned treatment works not reporting. First and most obvious was that on many rivers excluding the releases from POTWs was excluding the primary point source discharger on that river. We intended to estimate releases from POTWs using a 25 percent pass-through rate which had been published by EPA. In other words, 25 percent of what comes in goes out. There were a number of problems with making such an estimate and it's an estimation obviously. The first and most obvious is that we had no idea where the POTWs were releasing because not being reporters, there wasn't a receiving water field as there is for dischargers.

The second, which I think is also obvious, is that using a 25 percent pass-through rate isn't exact and it makes it impossible to do any kind of estimation about specific chemicals getting into the water, which is exactly what the community wants to know. So, so much for community right-to-know.

The third barrier was that it was inconvenient for communities to use, because the POTWs weren't reporting -- I have another barrier, but I have to find it -- oh, yes, the third barrier was something I mentioned before which is what river at they going into. The first is which one should we be looking at, the second is what about specific chemicals and the third which rivers are we talking about.

Because we recognized this was a really important question, we embarked on a telephone survey and we called the POTWs that were receiving the greatest amount of toxics and asked them what rivers they were discharging into. What was found was it was a good thing we didn't make the assumption that if you looked at the company that's releasing the TRI and used their receiving water, you can use that same receiving water for the POTW, but we knew better and it turned out that that assumption would not have been true. We had to basically make all those phone calls.

As a result of this effort, what we found was there were many rivers out there for which POTWs were the primary source of toxics, point source that is, and in some cases the only point source of toxics to very many waterways across the country.

For example, according to TRI from 1991 to 1994, Gravely Run, which is a little creek in Virginia received 6.3 million pounds of direct discharges during the years we studied in contrast to an estimated 20 million pounds of toxics from a POTW. That's more than three times as much which was received indirectly based on our estimation for POTWs. Again, it's an estimation. The Association of Metropolitan Sewage Agencies didn't like it, but it was the best we could do because we didn't have TRI numbers.

Less than a million pounds of toxic wastes were discharged to the Illinois River directly,compared to 13 million via POTW's, 13 times as much from POTWs based on our estimation. Again, if you don't look at the POTWs, you're missing the boat.

During the same years, the Kalamazoo River in Michigan, the Sacramento River in California and Onondaga Lake in Syracuse, New York all received 95 times more waste by our estimation from POTWs than they received from direct dischargers.

Finally, the last example is the Raritan River in New Jersey which got 50,000 times more waste from POTWs than were directly discharged, you get the picture, and that's a river that receives 12.6 million pounds of waste from POTW's.

Obviously, we're not getting the whole story from TRI. The only way to get a handle on this type of information is to require POTWs to report to TRI. Needless to say, EPA's proposed requirement, which I was heartened to see, to require companies to try to address this problem acknowledges that it is a problem and it does need to be addressed. But there are some drawbacks to requiring companies, as I'm sure some of you know, to try to figure this out for us. First, we have a right to know exactly which waterway is being impacted. I know that I've explained, you can't just assume that the waterway the company is discharging into is the same one the POTW will go to for example. In Virginia, that river I told you about, Gravely Run, the company that may send waste to the James River and then send waste to the POTW, then that comes out in the Gravely Run. If we don't know where that POTW is discharging, we don't know anything about the potential impacts to this very important creek which is really what we want to know, not what's happening to the James River which is downstream.

Second, treatment efficiencies, as someone mentioned earlier, are obviously going to complicate this matter. It's something that the average industrial user of a treatment plant may not know. Residence times, for example, storm water overflows, all these things are going to affect the relationship between what comes into a sewage treatment plant and what goes out the other end. This will complicate the process for a company to do reporting and trying to estimate what may pass through or end up in sludge, or actually be treated by the plant.

Third, reporting by sewage treatment plants would help us get a handle on the total amount of toxics coming out of their pipes. Right now, all we were able to estimate was what was coming from TRI reporters. So in other words, things we might miss would be something like urban runoff that goes into the sewage treatment plant, or the cadre of small facilities that are not required to report to TRI, or other facilities that are exempt from TRI for other reasons.

So in order for communities and government agencies who rely on TRI to have a true picture of what's going into the local water body, or contained in sewage sludge, and for pretreatment programs to be adequately enforced, POTWs need to report to TRI. We know that POTWs are not the ultimate source of this toxic problem. Nobody is blaming it on them. It's clear that these chemical wastes originate elsewhere, but community knowledge of releases from POTW pipes is necessary to stimulate improvements in waste

treatment programs, pretreatment programs and that's necessary in order to make America's rivers fishable and swimmable, which as you know, many of them currently are not. So it's necessary to not only achieve the goals of the Community Right-to-Know Act, but to achieve the goals of the Clean Water Act itself.

To the extent that POTWs withhold information on their discharges, they are contributing to continued excessive and unnecessary pollution of our local waterways, which the public has no way of knowing about. POTW managers know what they're releasing to the water. They have to because they're required to monitor it under their NPDES programs, just like most of you are. They know it's going to sludge because they're required to test the sludge under the 503 regulations. Again, something that the average company significant industrial user doesn't know. Finally, they know the plant efficiencies and residence times and all those other engineering factors that go into capacity rates, what ends up in sludge and what ends up being treated.

Such a large fraction of toxics released from point sources should not be ignored simply because POTWs aren't manufacturing companies or industries. This incomplete documentation does not achieve the goal of the Community Right-To-Know Act, or as I've mentioned the Clean Water Act, and it's a glaring problem in TRI that needs to be fully corrected. The only way to do this is to require POTWs to report. I will take any questions.

MS. FEIL: Any questions?

MS. BROMBERG: Kevin Bromberg, Small Business Administration. I don't know that much about water, but I thought they are required to file discharge monitoring reports, which means they are going to monitor how much toxics and eventual pollutants are flowing out. Have you compared that source of information and why is that inadequate for TRI purposes?

MS. SAVITZ: They are required to monitor for discharge monitoring reports under NPDES just like every other company that reports to TRI is required to do. The Community Right-To-Know Act was designed to provide the average person with the ability to find out what's being released. If you've ever looked at a discharge monitoring report or a permit, you know that the average person cannot understand it, as somebody else earlier today mentioned. So we've gone to the trouble to produce the TRI to get around that problem. What I'm saying is that it should be done, it should include POTWs as well as other companies.

MR. SKERNOLIS: In your evaluations of some of the watersheds you were looking at, are you able to identify the contribution of flows from POTWs and the contribution of toxics into POTWs from non-industrial facilities, not just TRI reporting, just from non-industrial households and commercial establishments, which I assume that EPA has no immediate intentions to require households to file. I'm just trying to get a sense of relatively speaking how much information are we going to get and still have this big block of the black hole of households.

MS. SAVITZ: Yes. I think that speaks to an earlier point I tried to make, which is you're right, POTWs have other users besides the industrial users that report to TRI. That's why just having those industrial users tell us what they think is going to come out of the POTW is incomplete compared to having the POTW tell me what's coming out of the POTW because they're going to have to take into consideration all the sources of toxics, which I can suggest are going to be largely industrial, partly urban runoff in some cases partly households in some cases, but I would also suggest that I've never seen it documented that

household waste comes any where close to the magnitude of industrial waste in especially urban POTWs like the ones I'm familiar with in Maryland.

MS. FEIL: Okay, one more speaker. Kevin Bromberg.

MR. BROMBERG: Jackie, I came late so you wouldn't be the last speaker even though I'm a B, what a deal.

Kevin Bromberg with the Small Business Administration Office of Advocacy. My boss always tells me I'm supposed to mention that the Office of Advocacy is an independent part of the Small Business Administration. We don't represent SBA as such. The Chief Counsel's job is to advocate the views of small businesses to federal agencies and to the Congress and here we are doing our job for federal agencies.

This month probably marks 10 years for me in TRI. For some people in this room that's 10 years too many, but I'm still here doing it because we have something hopefully significant to offer about what can be done in TRI.

I'm going to focus on something very narrow which is just the Form A. The two-page form that I did want to show you what the Form A looked like, but having looked in the latest data release, it's not in the back there so don't look for it. If you look on the Web, you will see a page that says here's a Form R, you can get it this way, but don't mention the Form A. It's stuck in the instructions. If you pull down in the Web, pages 138 and 139 and 140 of the instructions, that's where you're going to find the Form A. You can see our favorite two-page form.

EPA and I think SBA and OMB did want to encourage people to use the Form A. I encouraged EPA, one of the reasons I came up here is to encourage EPA to actually give the Form A a little more prominence, tell people it does exist, make it a little easier to find and explain the benefits of using the Form A.

The Form A is a nice two-page form. Half of it is just who you are, your facility name, address, your basic information about the facility. The other part is release and transfer less than 500 pounds certification, that's really the whole form, and a couple of permit numbers, et cetera. It's fairly simple. It was the view of the federal agencies that it would save a significant amount of money and time in filing a Form R. I don't remember EPA's number, but roughly I think it's $2,000 per form. EPA's original estimate for Form A users was 20,000 forms, we were talking $40 million a year, so it's a significant chunk of change. That's a good fraction of a major rule, $100 million. So we thought it was a good idea collectively, the federal agencies, that people use the Form A and there's a significant amount of savings there.

We're here to talk about expanding the use of the Form A. Paul started to talk about that and you've heard Holly Evans when I wasn't here from IPC talk about expanding the use of the Form A. The objections you've heard about not using the Form A has to do with if they're polluting facilities, we want to see the full information, or you're losing information. I want to propose today actually a new version of -- let's put the information on the Form A. Paul and I have actually agreed about this for some years, and we never understood why the Form A had so little information on it.

What I'm going to get to at the end is to the extent you lose information, you provide little boxes that contain the missing information, and to let the cat out of the bag, the missing information would be the amount of pounds recycled or energy recovered. It makes a lot of sense and it's something I hope we're going to look at.

What's inadequate about the Form A today in terms of who is qualified for Form A? There's two kinds of, well three kinds of problems about the Form A. The two

related problems about Form A is you now have to include any reportable amount, you have to include the amount of material that is recycled on or off site, any amount of material that's energy recovered. That wouldn't be so bad if there weren't a lot of people, people who are making computers, there are a lot of those people, people who are using metals, there are a lot of those people, and it's pretty easy to get over 500 pounds a year. If you look at the total amount of pounds recycled per year, it's 2.2 billion pounds. If you look at the amount of material and energy recovered, and as someone mentioned earlier, that stuff is gone. The energy recovered, it's gone, five to 12 million pounds.

I don't have the figures in front of me, I have not run them, but instead of 20,000 forms that would be eligible for the Form A under the current system, I'm thinking it's 30,000, 35,000, it's a lot more. There are a lot of people involved in that 2.2 plus five to 12 million pounds.

Now, Paul mentioned my good friend in the Office of Management and Budget, I thought I would give him a real plug since Paul mentioned this. Yes, they're there doing a job and in their infinite wisdom they decided to require EPA to do an intelligent thing, which EPA is in the process of going, reviewing the format. As part of the paperwork clearance, OMB asked them to review specifically the two questions that I just mentioned, which is what's the effect of energy recovery and what's the effect of recycling on the Form A. They raised it with four questions which are very well written questions, a little well written for a clearance, very well stated, very specific.

One, how many reports were filed using Form A and how many would be filed if the rule were modified as discussed above to change those thresholds to not count energy recovery and not recycling? What was the result in reduction of paperwork burden and how much would the burden be reduced in the Form A were modified? What was the reduction of the reported releases and what would the reduction be for the alternatives? What, if any, were the important losses of information associated with the various alternatives. EPA should submit an interim report to OMB by June of 1997 answering these questions for the 1995 reports and then they want them to do another cycle for the 1996 reports. This clearance is all supposed to be finished and all action taken by June of next year. So we're in the process of addressing these questions right now.

So, it's SBA's hope that the public will get involved in providing additional information and ideas about how to handle the Form A question, because it's on the platter, we have to deal with it separate and apart from the stakeholder process. We have to do this anyway, but the more people involved in this who have an interest the better.

So OMB has properly framed it, they've framed the questions. They're not giving any answers, not doing anything terrible here. They framed good questions. I hope they will get good answers. It's a judgment call, of course, as to how one answers those questions. Given proper data analysis of what is out there you can come up with answers of how many people are involved, how many forms are involved and what kind of answers.

Another benefit, besides increasing the savings from $40 million to $100 million or whatever is, as I said for many years, is a very important incentive for pollution prevention, a very important incentive for people to reduce their releases if they can say I can get this Form A and do less reporting if my release is under 1,000 pounds, instead of 500 pounds or 2,000 pounds. If we can capture 99.8 percent or 99.2 percent of the releases and capture 99 percent plus of the waste information as the environmentalists I've heard here talk today, that's a good way to do them, getting both things with one scheme.

My art work is not very good, but I think I will give it a try, how would

we address this on a piece of paper? Assuming you allowed people to do energy recycling and energy recovery, let's say we don't count that in the 500 pounds, or the reportable amount, another option is to change the reportable amount to something like 1,000 or 2,000. Let's say we leave the number alone. You could have I think it's the equivalent of 8.2 to -- right now, 8.2 is quantity for use for energy recovery on site, 8.3 is the energy recovery off site, 8.4 is recycling on site, and 8.5 is recycled off site.

You have the equivalent of 8.2, 8.3, 8.4 and 8.5. I was thinking of three boxes, which is zero to some number, a mid range and a greater than, and four sets of boxes. So you would simply say I do on site, I do off site, and do recycling for energy recovery. The ranges would be reasonably large to reflect in broad terms what people are doing today. So at the high end would be over a million pounds, or whatever would capture a fair amount of people in the high range.

So what does this do? You get the short form, you're not creating any additional risks here at the site, either on or off site, and you have the information preserved. It's 8.2, not in the same way of 8.2 but you were preserving 8.2 type information. I think that's -- we used the word compromise -- it's a reasonable compromise. Hopefully, you're still saving almost the same amount of money. People who are doing this know that they're doing on site or off site recycling or energy recovery, they know.

So I don't think this is an additional -- this is not significant cost, putting you in the box might cost you a little bit, but I think this is our initial thoughts on this. Doing the data analysis is going to tell you a lot more, of course, about whether this is the right approach, and also address other related issues. Thank you.

MS. FEIL: Any questions? Okay, thank you.

MS. HAZEN: Thank you for coming and sharing your thoughts on these. There are a series of these meetings. EPA is pulling together all this information. What's most important, what's coming out of these things is the agency clearly wants to strike a balance between the burden that's imposed on those who report to TRI and the needs that are articulated by those folks who are using TRI. Hopefully we can find some middle ground in the middle that brings us together.

To answer Ed Skernolis' comment sort of, no, we have no intention of including homes in TRI. Lawn mowers are not going to be included either or farms have been the other suggestion I've heard. So we have no plans for that in the near future. I wanted to be clear in terms of our communication here.

Again, thank you all for coming. I suspect we will see some of you at other meetings. Any questions of follow-up, you can contact any one of us here at EPA, we will answer the phone.

[Whereupon at 4:15 p.m., the meeting was adjourned.]